zenith

SERVICE MANUAL

Product Type:	PLASMA
Chassis:	RF-02KE
Manual Series:	
Manual Part #:	
Model Line:	
Product Year:	2002

Model Series:

P50W28A

CONTENTS

Description of Controls 4
Adjustment Instructions.....17
Diagrams 20
Parts List 23
Schematics.....
Printed Circuit Boards .....

Published June 2002
by Technical Publications
Zenith Electronics Corporation
201 James Record Road
Huntsville, Alabama 35824-1513

Copyright © 2002 by Zenith Electronics Corporation

Printed in Korea

PRODUCT SAFETY GUIDELINES

IMPORTANT SAFETY NOTICE

This manual was prepared for use only by properly trained audio-visual service technicians.

When servicing this product, under no circumstances should the original design be modified or altered without permission from Zenith Electronics Corporation. All components should be replaced only with types identical to those in the original circuit and their physical location, wiring and lead dress must conform to original layout upon completion of repairs.

CAUTION: Do not attempt to modify this product in any way.
Never perform customized installations without manufacturer's approval.
Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury.

Service work should be performed only after you are thoroughly familiar with these safety checks and servicing guidelines.

GRAPHIC SYMBOLS

The exclamation point within an equilateral triangle is intended to alert the service personnel to important safety information in the service literature.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the service personnel to the presence of noninsulated "dangerous voltage" that may be of sufficient magnitude to constitute a risk of electric shock.

The pictorial representation of a fuse and its rating within an equilateral triangle is intended to convey to the service personnel the following fuse replacement caution notice:

CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ALL FUSES WITH THE SAME TYPE AND RATING AS MARKED NEAR EACH FUSE.

SERVICE INFORMATION

While servicing, use an isolation transformer for protection from AC line shock. After the original service problem has been corrected, make a check of the following:

FIRE AND SHOCK HAZARD

1. Be sure that all components are positioned to avoid a possibility of adjacent component shorts. This is especially important on items transported to and from the repair shop.
2. Verify that all protective devices such as insulators, barriers, covers, shields, strain reliefs, power supply cords, and other hardware have been reinstalled per the original design. Be sure that the safety purpose of the polarized line plug has not been defeated.
3. Soldering must be inspected to discover possible cold solder joints, solder splashes, or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, for frayed leads or damaged insulation (including the AC cord), and replace if necessary.
5. No lead or component should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. After reassembly of the set, always perform an AC leakage test on all exposed metallic parts of the cabinet (the channel selector knobs, antenna terminals, handle and screws) to be sure that set is safe to operate without danger of electrical shock. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm, 10 watt resistor, paralleled by a .15 mfd 150V AC type capacitor between a known good earth ground water pipe, conduit, etc.) and the exposed metallic parts, one at a time.
   Measure the AC voltage across the combination of 1500 ohm resistor and .15 mfd capacitor. Reverse the AC plug by using a non-polarized adaptor and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts RMS. This corresponds to 0.5 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

TIPS ON PROPER INSTALLATION

1. Never install any receiver in a closed-in recess, cubbyhole, or closely fitting shelf space over, or close to, a heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as: outdoor patio installations where dew is a factor, near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct venting. The customer should also avoid the use of decorative scarves or other coverings that might obstruct ventilation.
4. Wall- and shelf-mounted installations using a commercial mounting kit must follow the factory-approved mounting instructions. A product mounted to a shelf or platform must retain its original feet (or the equivalent thickness in spacers) to provide adequate air flow across the bottom. Bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage tests on customized installations.
5. Caution customers against mounting a product on a sloping shelf or in a tilted position, unless the receiver is properly secured.
6. A product on a roll-about cart should be stable in its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against using a cart or stand that has not been listed by Underwriters Laboratories, Inc. for use with its specific model of television receiver or generically approved for use with TVs of the same or larger screen size.
8. Caution customers against using extension cords. Explain that a forest of extensions, sprouting from a single outlet, can lead to disastrous consequences to home and family.

TABLE OF CONTENTS

DESCRIPTION OF CONTROLS 4

SPECIFICATIONS.....7

EXTERNAL EQUIPMENT VIEWING SETUPS 9

EXTERNAL CONTROL DEVICE SETUP.....11

IR CODE(NEC FORMAT) 16

ADJUSTMENT INSTRUCTION.....17

BLOCK DIAGRAM.....20

EXPLODED VIEW.....22

EXPLODED VIEW PARTS LIST 23

REPLACEMENT PARTS LIST 24

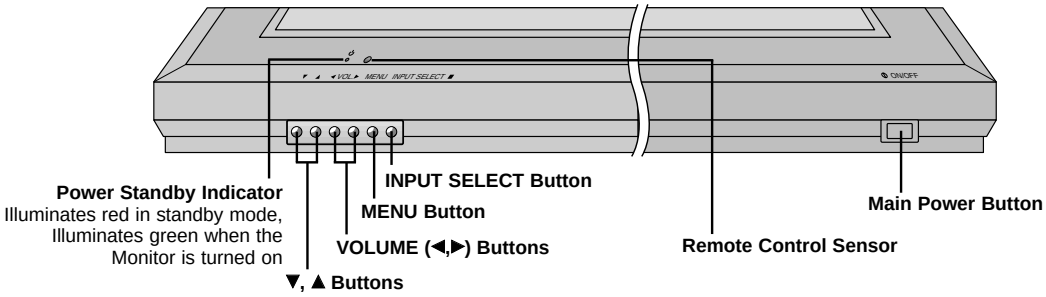
SCHEMATIC DIAGRAM.....

PRINTED CIRCUIT BOARD .....

DESCRIPTION OF CONTROLS

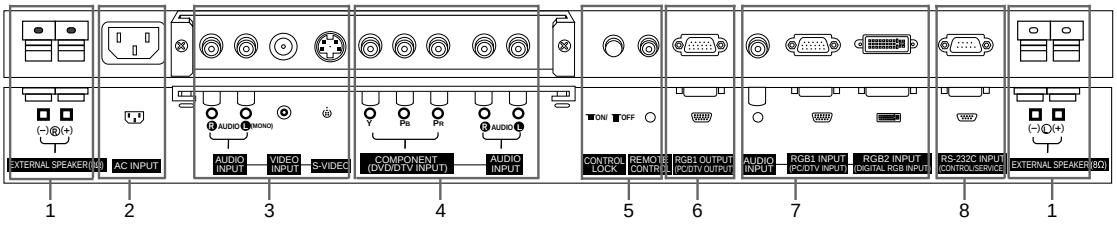
Monitor Controls

Front Panel Controls


Power Standby Indicator
Illuminates red in standby mode, Illuminates green when the Monitor is turned on
INPUT SELECT Button
MENU Button
VOLUME (◀,▶) Buttons
▼, ▲ Buttons
Remote Control Sensor
Main Power Button

Connection Options

Back Connection Panel



1. **EXTERNAL SPEAKER (8 ohm output)**
   Connect to optional external speaker(s).
   * For further information, refer to 'Speaker & Speaker Stand' manual.

2. **POWER CORD SOCKET**
   This Monitor operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the Monitor on DC power.

3. **AUDIO/VIDEO INPUT JACKS**
   Connect audio/video out from external equipment to these jacks.
   S-VIDEO INPUTS (S-VIDEO)
   Connect video out from an S-VIDEO VCR to the S-VIDEO input.

4. **COMPONENT (DVD/DTV INPUT)/AUDIO INPUT JACKS**

5. **CONTROL LOCK Switch**
   REMOTE CONTROL
   When "CONTROL LOCK" is set to "ON", Monitor is operated by the external control device.

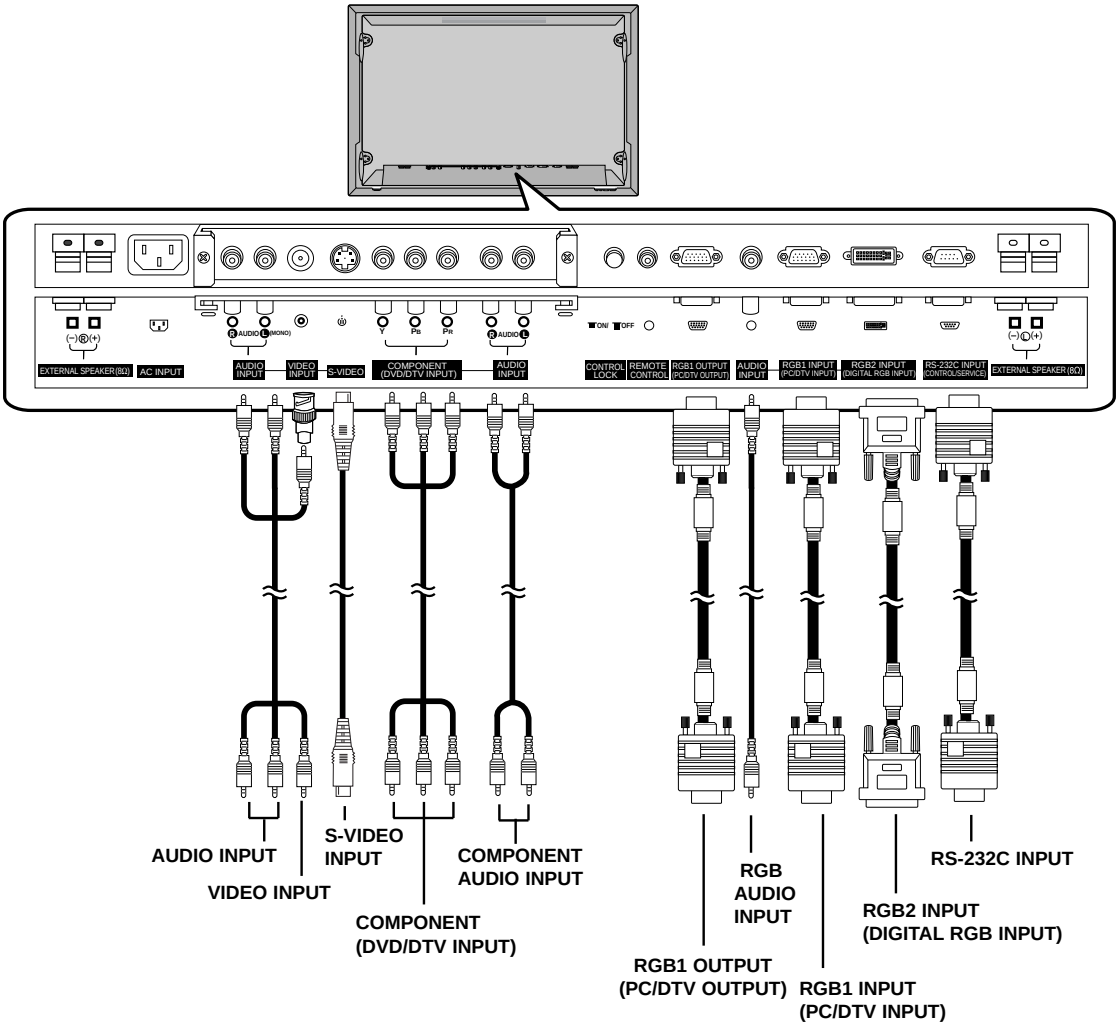
6. **RGB1 OUTPUT (PC/DTV OUTPUT) JACKS**
   You can watch the RGB1 signal on another monitor, connect RGB1 OUTPUT (PC/DTV OUTPUT) to another monitor's PC input port.

7. **AUDIO INPUT/RGB1 INPUT (PC/DTV INPUT)/ RGB2 INPUT (DIGITAL RGB INPUT) JACKS**
   Connect the monitor output connector from a PC to the appropriate input port.

8. **RS-232C INPUT (CONTROL/SERVICE) PORT**
   Connect to the RS-232C port on a PC.

External Equipment Connections

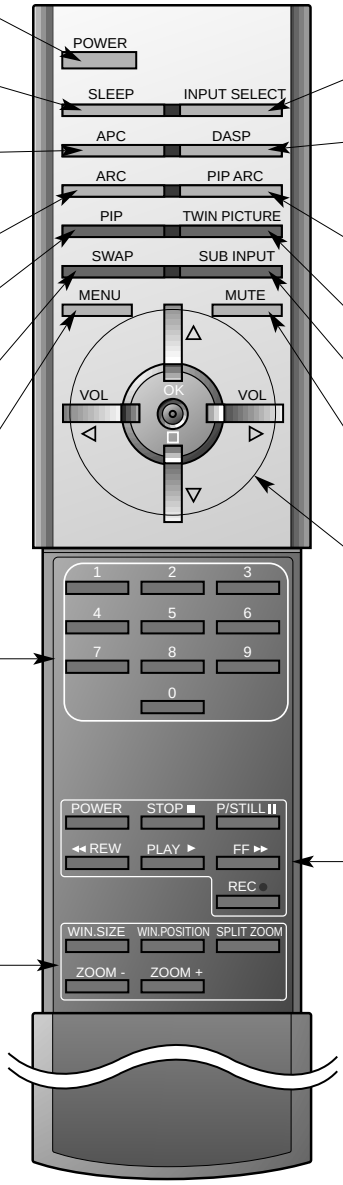
Monitor External Equipment Connection Panel



DESCRIPTION OF CONTROLS

Remote Control Key Functions

- When using the remote control, aim it at the remote control sensor on the Monitor.
- Under certain conditions or if the IR code from the remote is interrupted, a particular remote function may not occur. Repeat remote key presses for functions if necessary.



POWER
Switches the Monitor on from standby or off to standby.

SLEEP
Sets the sleep timer.

APC
Adjusts the factory preset picture according to the room.

ARC
Changes the picture format.

PIP
Switches the sub picture on or off.

SWAP
Exchanges main and sub picture images.

MENU
Displays on-screen menus.
Exits the current menu.
Memorizes menu changes.

NUMBER buttons

WIN. SIZE
Adjusts the sub picture size.

WIN.POSITION
Moves the sub picture.

SPLIT ZOOM
Enlarges selected picture section.

ZOOM-/ZOOM+
Enlarges or reduces the main picture size.

INPUT SELECT
Selects: VIDEO, S-VIDEO, RGB1-2 or COMPONENT mode.

DASP
Selects the sound appropriate to your viewing program character: FLAT, SPORTS, CINEMA, MUSIC, or USER

PIP ARC
Changes the PIP picture format.

TWIN PICTURE

SUB INPUT
Selects the input source for the sub picture.

MUTE
Switches the sound on or off.

OK

▲ / ▼
Select menu options.

◄ / ► (Volume buttons)
Increase/decrease sound level.
Adjusts menu settings.

VCR BUTTONS

Control some video cassette recorders.

SPECIFICATIONS

Product Specifications

MODEL	P50W28A
Width (inches / mm)	48.2 / 1223
Height (inches / mm)	28.9 / 734
Depth (inches / mm)	4.1 / 105
Weight (pounds / kg)	99.2 / 45
Power requirement	AC120V, 60Hz
Resolution	1366 x 768 (Dot)
Color	16,770,000 (256 steps of each R, G and B)
Operating Temperature Range	32 ~ 104°F (0 ~ 40°C)
Operating Humidity Range	Less than 80%
Maximum Elevation	6561 feet (2000m)

- The specifications shown above may be changed without notice for quality improvement.

SPECIFICATIONS

Monitor Display Specifications

RGB1 Mode

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	DDC	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	DDC
640x350	31.468	70.09		832x624	49.725	74.55	o
	37.861	85.08		1024x768	48.363	60.00	o
720x400	31.469	70.08	o		56.476	70.06	o
	37.927	85.03			60.023	75.02	o
640x480	31.469	59.94	o		68.677	84.99	o
	35.000	66.66	o	1152x864	54.348	60.05	o
	37.861	72.80	o		63.995	70.01	o
	37.500	75.00	o		67.500	75.00	o
	43.269	85.00	o		77.487	85.05	o
	45.913	90.03		1280x960	75.000	75.00	o
	53.011	100.04		1280x1024	63.981	60.02	o
	64.062	120.00			79.976	75.02	o
800x600	35.156	56.25	o	1360x768	47.700	60.00	o
	37.879	60.31	o		59.625	75.02	o
	46.875	75.00	o		67.575	84.99	o
	53.674	85.06	o	1366x768	47.700	60.00	
	56.000	90.00			59.625	75.02	
	64.016	100.00			67.575	84.99	

RGB2 Mode

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	DDC	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	DDC
640x350	31.468	70.09		1024x768	48.363	60.00	o
	37.861	85.08			56.476	70.06	o
720x400	31.469	70.08	o		60.023	75.02	o
	37.927	85.03			68.677	84.99	o
640x480	31.469	59.94	o	1152x864	54.348	60.05	o
	35.000	66.66	o		63.995	70.01	o
	37.861	72.80	o		67.500	75.00	o
	37.500	75.00	o		77.487	85.05	o
	43.269	85.00	o	1152x870	68.681	75.06	o
800x600	35.156	56.25	o	1280x960	60.000	60.00	o
	37.879	60.31	o		75.000	75.00	o
	48.077	72.18	o	1280x1024	63.981	60.02	o
	46.875	75.00	o	1360x768	47.700	60.00	o
	53.674	85.06	o		59.625	75.02	o
832x624	49.725	74.55	o		67.575	84.99	o
				1366x768	47.700	60.00	
					59.625	75.02	
					67.575	84.99	

Note:

• DOS mode may not work depending on video card if using a DVI-I cable.

EXTERNAL EQUIPMENT VIEWING SETUPS

Watching VCR Setup

How to Connect
- When connecting the Monitor to external equipment, match the colors of connecting ports (Video - yellow, Audio (L) - white, Audio (R) -red).
- Connect the VIDEO INPUT socket (yellow) with the BNC-RCA adapter to the VIDEO INPUT on the Monitor.
- If you have a mono VCR, connect the audio cable from the VCR to the AUDIO (L/MONO) input on the Monitor.
- If you connect an S-VIDEO VCR to the S-VIDEO input, the picture quality is improved; compared to connecting a regular VCR to the Video input.
- Use the orbiter function to avoid having a fixed image remain on the screen for a long period of time. Typically a frozen still picture from a VCR.
  If a 4:3 picture format is used; the fixed image may remain visible on the screen.
- To avoid picture noise (interference), leave an adequate distance between the VCR and Monitor

How to View
1. Use the **INPUT SELECT** button on the remote control to select VIDEO.
(If connected to S-VIDEO, select the S-VIDEO external input source.)
2. Insert a video tape into the VCR and press the **PLAY** button on the VCR. (See VCR owner's manual)

Watching Cable TV Setup

How to Connect
- After subscribing to a cable TV service from a local provider and installing a converter, you can watch cable TV programming. This monitor cannot display TV programming unless a TV tuner device or cable TV converter box is connected to the Monitor.
- For further information regarding cable TV service, contact your local cable TV service provider(s).

How to View
1. Use the **INPUT SELECT** button on the remote control and select VIDEO.
2. Tune to cable service provided channels using the cable box.

Watching External A/V Source Setup

How to Connect
- When connecting the monitor to an external source, match the colors of AUDIO/VIDEO input jacks on the monitor with the output jacks on the audio/video equipment: Video = yellow, Audio (Left) = white, Audio (Right) = red.

How to View
1. Use the **INPUT SELECT** button on the remote control to select VIDEO.
2. Operate the corresponding external equipment. See external equipment operating guide.

Watching DVD Setup

How to Connect
- Connect DVD video outputs to Y, P_B, P_R of COMPONENT (DVD/DTV INPUT) and audio outputs to Audio jacks of AUDIO INPUT.
- If your DVD only has a S-Video S-video output jack, connect S-Video of the DVD to S-Video input on the monitor and DVD audio outputs to Audio jacks of AUDIO INPUT.

How to View
1. Turn on the DVD player, and insert a DVD.
2. Use **INPUT SELECT** button on the remote control to select COMPONENT. Refer to the DVD player's manual for operating instructions.

- **Component Input ports**
  You can get better picture quality if you connect a DVD player to the component input ports indicated below.

Component ports of the Monitor	Y	P_B	P_R

Video output ports of DVD player			
	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	P_B	P_R

EXTERNAL EQUIPMENT VIEWING SETUPS

Watching DTV Setup

- To watch digitally broadcast programs, purchase/connect a digital set-top box.
- This monitor supports HDCP (High-bandwidth Digital Contents Protection) protocol for DVI DTV (480p,720p,1080i) mode.

How to Connect

- Connect DTV set-top box video output to monitor COMPONENT (DVD/DTV INPUT) or to the monitor RGB1 (PC/DTV INPUT), RGB2 (PC/DTV input) connector depending on your set-top box connectors.
- Connect DTV set-top box audio outputs to monitor AUDIO INPUT jacks.

How to View

1. Turn on the digital set-top box. (Refer to the digital set-top box owner's manual.)
2. Use **INPUT SELECT** on the remote control to select COMPONENT, RGB 1, or RGB2.

PC Setup Overview

- To enjoy vivid picture and sound, connect a PC to the Monitor.
- Avoid keeping a fixed image on the monitor's screen for a long period of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC mode to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.
- The synchronization input form for Horizontal and Vertical frequencies is separate.

How to Connect a PC

- We recommend using 1024x768, 60Hz or 1366x768, 75Hz for the PC mode, they provide the best picture quality.
- Connect the signal cable from the monitor output port of the PC to the RGB1 INPUT (PC/DTV INPUT) port of the Monitor or the signal cable from the DVI output port of the PC to the RGB2 INPUT (DIGITAL RGB INPUT) port on the Monitor and change the resolution output of PC accordingly.
- Connect the audio cable from the PC to the Audio input on the Monitor. (Audio cables are not included with the Monitor).
- If using a sound card, adjust PC sound as required.
- This monitor provides a VESA Plug and Play capability. The monitor sends EDID data to the PC system with a DDC protocol. The PC adjusts automatically to use this monitor.
- DDC protocol is preset for RGB1 (Analog RGB), RGB2 (DVI, Digital RGB) mode.
- If required, adjust the monitor settings for Plug and Play functionally.
- If graphic card on the PC does not output analog and digital RGB simultaneously, connect only one of both RGB1 INPUT (PC/DTV INPUT) or RGB2 INPUT (DIGITAL RGB INPUT) to display the PC on the monitor.
  If graphic card on the PC does output analog and digital RGB simultaneously, set the monitor to either RGB1 or RGB2; (the other mode is set to Plug and Play automatically by the monitor.)
- The monitor perceives 640x480, 60Hz as DTV 480p based on the PC graphic card. In this case, change the screen scanning rate for the graphic card.

How to View PC Image

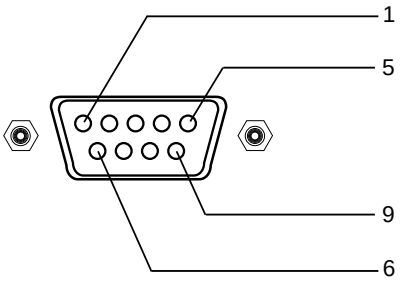
1. Turn on the PC and the Monitor.
2. Turn on the display by pressing the **POWER** button on the Monitor's remote control.
3. Use the **INPUT SELECT** button on the remote control to select the RGB1 or RGB2 input source.
4. Set the resolution output of the PC to WXGA or under (1366 x 768, 84.99Hz).

EXTERNAL CONTROL DEVICE SETUP

- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the Monitor's functions externally.
- Connect the serial port of the control device to the RS-232C jack on the Monitor back panel.
- RS-232C connection cables are not supplied with the Monitor.

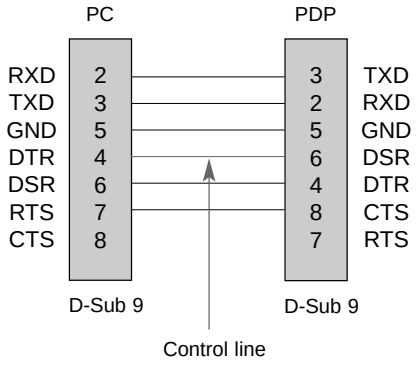
Type of Connector: D-Sub 9-Pin male

No.	Pin name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection

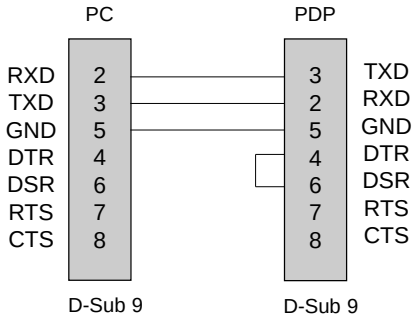


RS-232 Configurations

7-Wire Configuration
(Standard RS-232C cable)

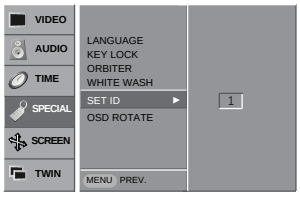


3-Wire Configuration
(Not standard)



Set ID

1. Press the **MENU** button and then use the ▲ / ▼ button to select the SPECIAL menu.
2. Press the ► button and then use ▲ / ▼ button to select SET ID.
3. Press the ► button and then use ◄ / ► button to adjust SET ID to choose the desired monitor ID number.
   • The adjustment range of SET ID is 1 ~ 99.



Communication Parameters

- Baud rate : 115200 bps (UART)
- Data length : 8 bits
- Parity : None
- Stop bit : 1 bit
- Communication code : ASCII code

EXTERNAL CONTROL DEVICE SETUP

Command Reference List

	COMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	a	0 ~ 1
02. Input Select	k	b	0 ~ 4
03. Aspect Ratio	k	c	0 ~ 2
04. Screen Mute	k	d	0 ~ 1
05. Volume Mute	k	e	0 ~ 1
06. Volume Control	k	f	0 ~ 64
07. Contrast	k	g	0 ~ 64
08. Brightness	k	h	0 ~ 64
09. Color	k	i	0 ~ 64
10. Tint	k	j	0 ~ 64
11. Sharpness	k	k	0 ~ 64
12. OSD select	k	l	0 ~ 1
13. Remote control lock mode	k	m	0 ~ 1
14. PIP/Twin	k	n	0 ~ 3
15. PIP size	k	o	0 ~ 1
16. PIP position	k	q	0 ~ 3
17. Treble	k	r	0 ~ 64
18. Bass	k	s	0 ~ 64
19. Balance	k	t	0 ~ 64
20. Color temperature	k	u	0 ~ 3
21. Red adjustment	k	v	0 ~ 64
22. Green adjustment	k	w	0 ~ 64
23. Blue adjustment	k	$	0 ~ 64
24. PIP input source	k	y	0 ~ 4
25. Orbiter	j	p	0 ~ 1
26. White Wash	j	q	0 ~ 1
27. Orbiter Time Setting	j	r	1 ~ FE
28. Orbiter Pixel Setting	j	s	0 ~9

- When setting the 25 ~ 28, a menu doesn't display on screen.

Transmission / Receiving Protocol

Transmission

[Command1][Command2][ ][Set ID][ ][Data][Cr]

- [Command 1]: k
- [Command 2]: To control PDP set.
- [Set ID]: You can adjust the set ID to choose desired monitor ID number in special menu. See previous page. Adjustment range is 1 ~ 99. When selecting Set ID '0', every connected PDP set is controlled.
- [DATA]: To transmit command data.
  Transmit 'FF' data to read status of command.
- [Cr]: Carriage Return ASCII code '0x0D'
- [ ]: ASCII code 'space (0x20)'

OK Acknowledgement

[Command2][ ][Set ID][ ][OK][Data][x]

- The Monitor transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][ ][Set ID][ ][NG][x]

- The Monitor transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

01. Power (Command:a)

► To control Power On/Off of the Monitor.

Transmission

[k][a][ ][Set ID][ ][Data][Cr]

Data 0: Power Off 1: Power On

Acknowledgement

[a][ ][Set ID][ ][OK][Data][x]

Data 0: Power Off 1: Power On

► To show Power On/Off.

Transmission

[k][a][ ][Set ID][ ][FF][Cr]

Data 0: Power Off 1: Power On

Acknowledgement

[a][ ][Set ID][ ][OK][Data][x]

Data 0: Power Off 1: Power On

- In a like manner, if other functions transmit 'FF' data based on this format, acknowledgement data feedback presents status about each function.

02. Input Select (Command:b) (Main Picture Input)

► To select input source for the Monitor.
You can also select an input source using the INPUT SELECT button on the Monitor's remote control.

Transmission

[k][b][ ][Set ID][ ][Data][Cr]

Data 0: RGB 1 3: S-VIDEO
1: COMPONENT 4: RGB 2
2: VIDEO

Acknowledgement

[b][ ][Set ID][ ][OK][Data][x]

Data 0: RGB 1 3: S-VIDEO
1: COMPONENT 4: RGB 2
2: VIDEO

EXTERNAL CONTROL DEVICE SETUP

03. Aspect Ratio (Command:c) (Main picture format)

► To adjust the screen format.
You can also adjust the screen format using the ARC (Aspect Ratio Control) button on remote control or in the Special menu.

Transmission

[k][c][ ][Set ID][ ][Data][Cr]

Data 0: Wide screen (16:9)
1: Normal screen (4:3)
2: Full screen (Zoom)

Acknowledgement

[c][ ][Set ID][ ][OK][Data][x]

Data 0: Wide screen (16:9)
1: Normal screen (4:3)
2: Full screen (Zoom)

• Using the PC input, select either 16:9 or 4:3 screen aspect ratio.

04. Screen Mute (Command:d)

► To select screen mute on/off.

Transmission

[k][d][ ][Set ID][ ][Data][Cr]

Data 0: Screen mute off (Picture on)
1: Screen mute on (Picture off)

Acknowledgement

[d][ ][Set ID][ ][OK][Data][x]

Data 0: Screen mute off (Picture on)
1: Screen mute on (Picture off)

05. Volume Mute (Command:e)

► To control volume mute on/off.
You can also adjust mute using the MUTE button on remote control.

Transmission

[k][e][ ][Set ID][ ][Data][Cr]

Data 0: Volume mute on (Volume off)
1: Volume mute off (Volume on)

Acknowledgement

[e][ ][Set ID][ ][OK][Data][x]

Data 0: Volume mute on (Volume off)
1: Volume mute off (Volume on)

06. Volume Control (Command:f)

► To adjust volume.
You can also adjust volume with the volume buttons on remote control.

Transmission

[k][f][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1' as shown right.

Acknowledgement

[f][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

07. Contrast (Command:g)

► To adjust screen contrast.
You can also adjust contrast in the Video menu.

Transmission

[k][g][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1' as shown below.

Acknowledgement

[g][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

08. Brightness (Command:h)

► To adjust screen brightness.
You can also adjust brightness in the Video menu.

Transmission

[k][h][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1' as shown below.

Acknowledgement

[h][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

09. Color (Command:i)

► To adjust the screen color.
You can also adjust color in the Video menu.

Transmission

[k][i][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1' as shown below.

Acknowledgement

[i][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

10. Tint (Command:j)

► To adjust the screen tint.
You can also adjust tint in the Video menu.

Transmission

[k][j][ ][Set ID][ ][Data][Cr]

Data Red: 0 ~ Green: 64

• Refer to 'Real data mapping1' as shown below.

Acknowledgement

[j][ ][Set ID][ ][OK][Data][x]

Data Red: 0 ~ Green: 64

• Real data mapping 1

0 : Step 0
⋮
A : Step 10 (SET ID 10)
⋮
F : Step 15 (SET ID 15)
10 : Step 16 (SET ID 16)
⋮
64 : Step 100

• Real data mapping 2

0 : -10
5 : -9
A : -8
⋮
2D: -1
32: 0
37: +1
⋮
5F: +9
64: +10

EXTERNAL CONTROL DEVICE SETUP

11. Sharpness (Command:k)

▶ To adjust the screen sharpness.
You can also adjust sharpness in the Video menu.

Transmission

[k][k][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1'. See page 25.

Acknowledgement

[k][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

12. OSD Select (Command:l)

▶ To select OSD (On Screen Display) on/off.

Transmission

[k][l][ ][Set ID][ ][Data][Cr]

Data 0: OSD off 1: OSD on

Acknowledgement

[l][ ][Set ID][ ][OK][Data][x]

Data 0: OSD off 1: OSD on

13. Remote Control Lock Mode (Command:m)

▶ To lock the front panel controls on the monitor

Transmission

[k][m][ ][Set ID][ ][Data][Cr]

Data 0: Lock off 1: Lock on

Acknowledgement

[m][ ][Set ID][ ][OK][Data][x]

Data 0: Lock off 1: Lock on

• If you're not using the remote control, use this mode.
When main power is on/off, remote control lock is released.

14. PIP / Twin (Command:n)

▶ To control the PIP (Picture In picture).
You can also control the PIP/TWIN using the PIP or Twin picture button on the remote control or in the Special menu.

Transmission

[k][n][ ][Set ID][ ][Data][Cr]

Data 0: PIP/DW of 2: DW1
1: PIP 3: DW2

Acknowledgement

[n][ ][Set ID][ ][OK][Data][x]

Data 0: PIP/DW of 2: DW1
1: PIP 3: DW2

15. PIP Size (Command:o)

▶ To select the PIP picture format.
You can also select the PIP picture format using WIN.SIZE on the remote control.

Transmission

[k][o][ ][Set ID][ ][Data][Cr]

Data 0: 4:3 1: 16:9

Acknowledgement

[o][ ][Set ID][ ][OK][Data][x]

Data 0 : 4:3 1: 16:9

16. PIP Position (Command:q)

▶ To select sub picture position for PIP.
You can also adjust the sub picture position using WIN.POSITION on the remote control or in the Special menu.

Transmission

[k][q][ ][Set ID][ ][Data][Cr]

Data 0: Right down on screen
1: Left down on screen
2: Left up on screen
3: Right up on screen

Acknowledgement

[q][ ][Set ID][ ][OK][Data][x]

Data 0: Right down on screen
1: Left down on screen
2: Left up on screen
3: Right up on screen

17. Treble (Command:r)

▶ To adjust treble.
You can also adjust treble in the Audio menu.

Transmission

[k][r][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1'. See page 25.

Acknowledgement

[r][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

18. Bass (Command:s)

▶ To adjust bass.
You can also adjust bass in the Audio menu.

Transmission

[k][s][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1'. See page 25.

Acknowledgement

[s][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

19. Balance (Command:t)

▶ To adjust balance.
You can also adjust balance in the Audio menu.

Transmission

[k][t][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping1'. See page 25.

Acknowledgement

[t][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

EXTERNAL CONTROL DEVICE SETUP

20. Color Temperature (Command:u)

▶ To adjust color temperature.
You can also adjust ACC in the Video menu.

Transmission

[k][u][ ][Set ID][ ][Data][Cr]

Data 0: Normal 1: Cool 2: Warm 3: User

Acknowledgement

[u][ ][Set ID][ ][OK][Data][x]

Data 0: Normal 1: Cool 2: Warm 3: User

21. Red Adjustment (Command:v)

▶ To adjust red in color temperature.

Transmission

[k][v][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping 2'. See page 25.

Acknowledgement

[v][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

22. Green Adjustment (Command:w)

▶ To adjust green in color temperature.

Transmission

[k][w][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping 2'. See page 25.

Acknowledgement

[w][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

23. Blue Adjustment (Command:$)

▶ To adjust blue in color temperature.

Transmission

[k][$][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping 2'. See page 25.

Acknowledgement

[$][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 64

24. PIP Input Select (Command:y)

▶ To select input source for sub picture in PIP mode.

Transmission

[k][y][ ][Set ID][ ][Data][Cr]

Data 0: RGB1 1: COMPONENT
2: VIDEO 3: S-VIDEO 4: RGB2

Acknowledgement

[y][ ][Set ID][ ][OK][Data][x]

Data 0: RGB1 1: COMPONENT
2: VIDEO 3: S-VIDEO 4: RGB2

25. Orbiter (Command:p)

▶ To control the orbiter function on/off.

Transmission

[j][p][ ][Set ID][ ][Data][Cr]

Data 0: Orbiter off
1: Orbiter on

Acknowledgement

[p][ ][Set ID][ ][OK][Data][x]

Data 0: Orbiter off
1: Orbiter on

26. White Wash (Command:q)

▶ To control the white wash function on/off.

Transmission

[j][q][ ][Set ID][ ][Data][Cr]

Data 0: White Wash off
1: White Wash on

Acknowledgement

[q][ ][Set ID][ ][OK][Data][x]

Data 0: White Wash off
1: White Wash on

27. Orbiter Time Setting (Command:r)

▶ To adjust orbiter operation time term.

Transmission

[j][r][ ][Set ID][ ][Data][Cr]

Data Min: 1 ~ Max: FE

• Refer to 'Real data mapping1'. See page 25.

Acknowledgement

[r][ ][Set ID][ ][OK][Data][x]

Data Min: 1 ~ Max: FE

28. Orbiter Pixel Setting (Command:s)

▶ To adjust pixel number in orbiter function.

Transmission

[j][s][ ][Set ID][ ][Data][Cr]

Data Min: 0 ~ Max: 9

• Refer to 'Real data mapping1'. See page 25.

Acknowledgement

[s][ ][Set ID][ ][OK][Data][x]

Data Min: 0 ~ Max: 9

IR CODE(NEC Format)

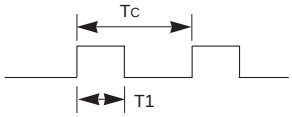
How to Connect

▶ Connect your wired remote control to the Remote port on the Monitor.
Set the CONTROL LOCK to 'ON' on the Monitor back panel to operate Monitor with wired remote control.

Remote Control IR Code (NEC Format)

▶ **Output waveform**

Single pulse, modulated with 37.917KHz signal at 455KHz

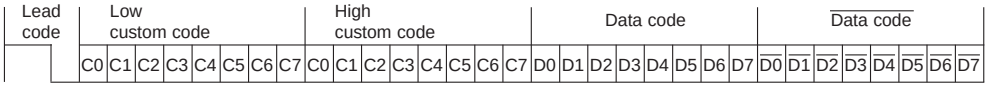


Carrier frequency

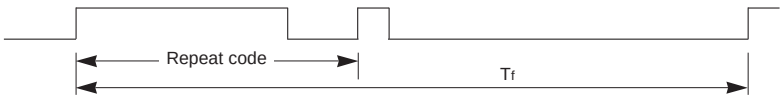
$F_{CAR} = 1/T_C = f_{OSC}/12$
Duty ratio = $T1/T_C = 1/3$

▶ **Configuration of frame**

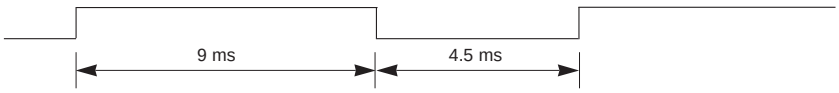
• 1st frame


Lead code
Low custom code
High custom code
Data code
Data code
C0 C1 C2 C3 C4 C5 C6 C7 C0 C1 C2 C3 C4 C5 C6 C7 D0 D1 D2 D3 D4 D5 D6 D7 D0 D1 D2 D3 D4 D5 D6 D7

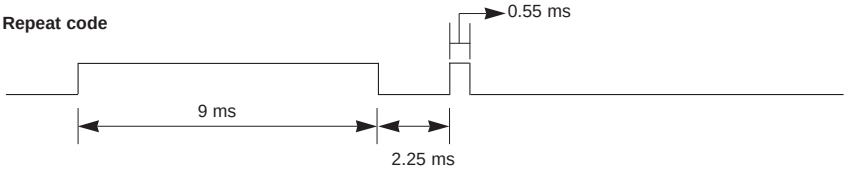
• Repeat frame



▶ **Lead code**

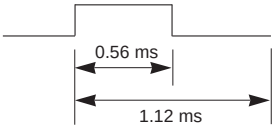


▶ **Repeat code**

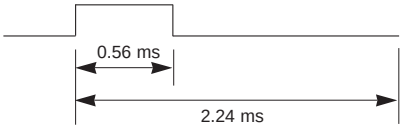


▶ **Bit description**

• Bit "0"

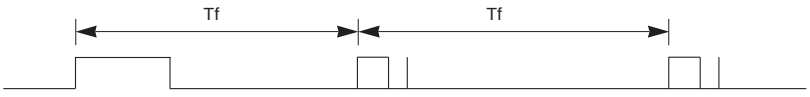


• Bit "1"



▶ **Frame interval : Tf**

The waveform is transmitted as long as a key is depressed.



Tf=108ms @455KHz

ADJUSTMENT INSTRUCTIONS

1. Application Object

These instructions are applied to all of the PDP monitor, RF-02CA.

2. Notes

(1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of isolation transformer will help protect test instrument.
(2) Adjustment must be done in the correct order.
(3) The adjustment must be performed in the circumstance of 25±5°C of temperature and 65±10% of relative humidity.
(4) The input voltage of the receiver must keep 110~240V, 50/60Hz in adjusting.
(5) The receiver must be operated for about 15 minutes prior to the adjustment.

1) After receiving 100% white pattern (06CH), the receiver must be operate prior to adjustment. (Or white condition in HEAT-RUN mode)
2) Enter into HEAT-RUN mode
- Press the POWER ON KEY on R/C for adjustment.
- OSD display HEAT-RUN WHITE and screen display 100% full WHITE PATTERN.

※ Set is activated HEAT-RUN without signal generator in this mode.
※ Single color pattern of HEAT-RUN mode uses to check PANEL. (RED/BLUE/GREEN)

[Caution] If you turn on a still screen more than 20 minutes (such as Cross Hatch Pattern), a afterimage may be occur in the black level part of the screen.

3. RGB Auto Cut-Off & MIN Bias Adjustment

(1) Input Full Back (0 Gray) signal which generated from Pattern Generator into CVBS and RGB1 Input part.
(2) Press POWER ON KEY on R/C for adjustment and select AUTO-CUT(Cut-off Auto Adjustment)
(3) Press Vol. + key and operate TO SET
(4) Screen adjustment starts with Full Black screen. Original Window screen will be presented about 5-6 seconds later. And if there is a mark of OK OSD, then the Auto Cut-off and Min-Bias adjustment will be completed.
(5) Pass to the next MAX Bias Adjustment after Adjustment.

※ Once the module is replaced the voltage must be adjusted.

4. MAX Bias Adjustment

(1) Input Full White (255 Gray) signal which generated from Pattern Generator into CVBS and RGB1 Input part.
(2) Press POWER ON KEY on R/C for adjustment and select MAX-BIAS
(3) Press Vol. + key and operate TO SET
(4) Original Full White screen will be presented about 1~2 seconds later.
(5) After adjustment, press ↵ key to save adjustment and come out of the adjustment mode.

● You can check whether circuit adjustment is operated well or not, as below.
(1) Display RGB1 to the Main picture, CVBS to the Sub picture in the TWIN PICTURE.
(2) To check the MIN-Bias, input Full Black (0 gray) signal into CVBS and RGB1 input part at the same time in the Pattern Generator.
(3) To check the MAX-Bias, input Full White (255 gray) signal into CVBS and RGB1 input part at the same time in the Pattern Generator.
(4) Compare Black Level with White Level by eyes. And if there is no Level difference, the adjustment is completed well.

● Data value, which adjusted in the board, is valid until the VSC Board is dissued and must be protected. For the protection of data, Micom does not permit any more adjustment after completion.
● In case of re-adjustment, operate First Value Setting.

Each PCB Assy must be checked by Check JIG Set before assembly. (Especially, be careful Power PCB Assy which can cause fatal Damage to PDP Module.)

5. POWER PCB Assy Voltage Adjustment (Va, Vs Voltage Adjustment)

5-1 Test Equipment : D.M.M 1EA

5-2 Connection Diagram for Measuring

Refer to Fig 1.

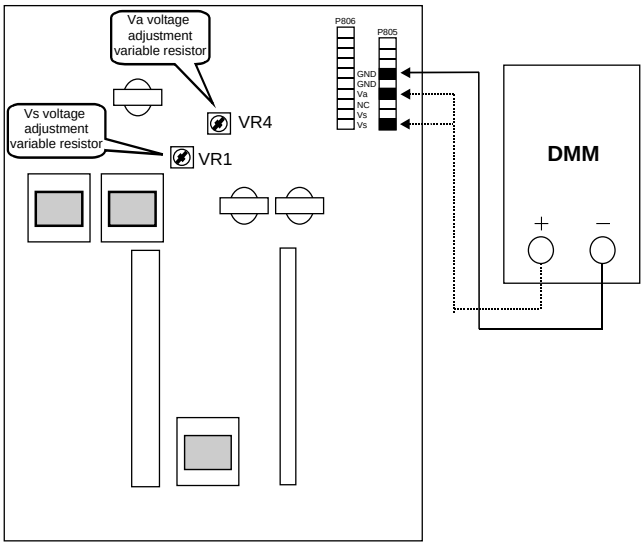
5-3 Adjustment Method

(1) Va Adjustment

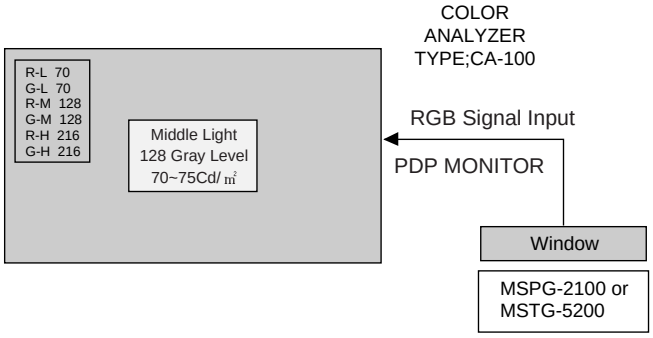
1) After receiving 100% white pattern, HEAT RUN.
2) Connect + terminal of D.M.M to Va pin of P805 and connect – terminal to GND pin of P805.
3) After turning the VR4, voltage of D.M.M adjustment as same as Va voltage which on label of panel Right/Top. (Deviation : ±0.5V)

(2) Vs adjustment

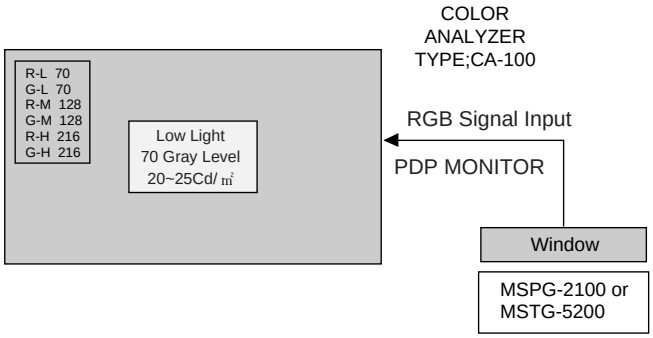
1) Connect + terminal of D.M.M to Vs pin of P805 and connect – terminal to GND pin of P805.
2) Adjust VR1 until DVM reads the same as the voltage labled on the PWB. (Deviation : ±0.5V)



<Fig 1> Connection Diagram of Power Adjustment for Measuring



<Fig 3> Connection Diagram of Manual Adjustment (Middle Light)



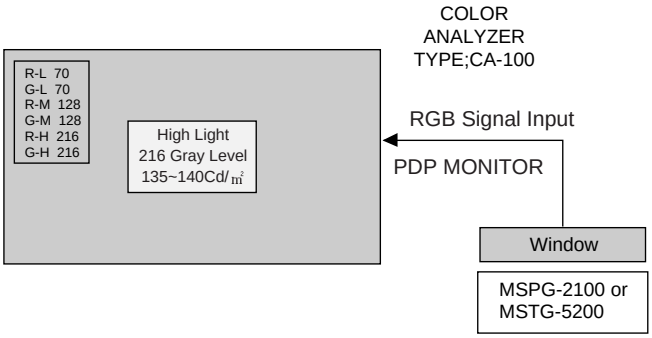
<Fig 4> Connection Diagram of Manual Adjustment (Low Light)

6. Adjustment of White Balance

6-1. Required Equipment

Color analyzer (CA-100 or same product)

6-2. Connection Diagram of Equipment for Measuring (Manual Adjustment)



<Fig 2> Connection Diagram of Manual Adjustment (High Light)

6-3. Adjustment of White Balance

- Operate the Zero-calibration of the CA-100, then stick sensor to PDP module surface when you adjust.
- For manual adjustment, it is also possible by the following sequence.

(1) Select WHITE PATTERN of HEAT RUN mode by pressing POWER ON KEY on SVC remote control for adjustment then operate HEAT RUN more than 15 minute.

(2) Supply 216Gray, 128Gray, 70Gray Level, 50% size length and breadth signal to RGB1 input. (Refer to Fig 2,3,4)

(3) W/B adjustment must be adjusted once and follow the sequence of Low Light --> Middle Light --> High Light and then save the adjustment value with ν Key.

(4) To adjust Low Light , stick sensor to Gray Level(or 20~25 Cd/m2) Pattern, press ADJ Key on R/C for adjustment and press σ, τ on R/C in adjustment mode to select R-L or G-L, press VOL +, - Key and adjust it until color coordination becomes as below.
X: 0.290±0.003, Y: 0.300±0.003,
Color temperature: 8, 500°K±500°K

(5) To adjust Middle Light , stick sensor to Gray Level(or 70~75 Cd/m2) Pattern, press ADJ Key on R/C for adjustment and

press σ, τ on R/C in adjustment mode to select R-M or G-M, press VOL +, - Key and adjust it until color coordination becomes as below.
X: 0.290±0.003, Y: 0.300±0.003
Color temperature: 8, 500°K±500°K

(6) To adjust High Light, stick sensor to Gray Level (or 135-140 Cd/m2) Pattern, press ADJ Key on R/C for adjustment and press σ, τ on R/C in adjustment mode to select R-L or G-L, press VOL +, - Key and adjust it until color coordination becomes as below.
X: 0.290±0.003, Y: 0.300±0.003
Color temperature: 8, 500°K±500°K

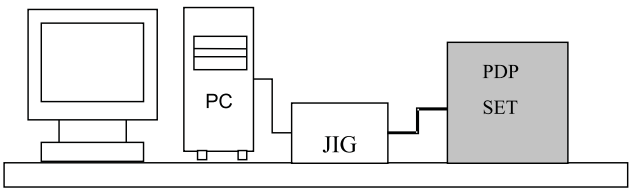
(7) Exit adjustment mode using ν Key.

7. DDC Data Input

7-1. Required Test Equipment

(1) A jig for adjusting PC, DDC. (PC serial to D-sub. Connection equipment)
(2) S/W for writing DDC(EDID data write & read)
(3) D-Sub 15P cable, D-Sub to DVI Connector (Connect to DVI Jack)

7-2. Setting of Device



7-3. Preparation for Adjustment

(1) Set devices as above and turn the PC, jig on.
(2) Put S/W for writing DDC (EDID data write & read) into operation. (operated in DOS mode.)

7-4. Sequence of Adjustment

(1) DDC Data Input for Analog-RGB

1) Put the set on the table and turn the power on.
2) Connect PC Serial to D-sub 15P Cable of JIG for DDC Adjustment to RGB1 terminal (D-Sub 15Pin).
3) Operate S/W for DDC record and select DDC Data for Analog RGB in Model Menu.
4) Operate EDID Write command.
5) Operate EDID Read command and check whether Check Sum is OK.
6) If Check Sum is NG, repeat 3) ~ 4).
7) If Check Sum is OK, DDC Data for Analog-RGB input is completed.

(2) DDC Data input for Digital-RGB

1) Connect PC Serial to DVI Cable of JIG for DDC Adjustment to RGB2 terminal (DVI Jack).
2) Operate S/W for DDC record and select DDC Data for Digital RGB in Model Menu.
3) Operate EDID Write command.
4) Operate EDID Read command and check whether Check Sum is OK.
5) If Check Sum is NG, repeat 3) ~ 4).
6) If Check Sum is OK, DDC Data for Digital-RGB input is completed.

8. Component Off-Set adjustment

Input the signal to HD-STB (SK-010T) and receive 14Ch.

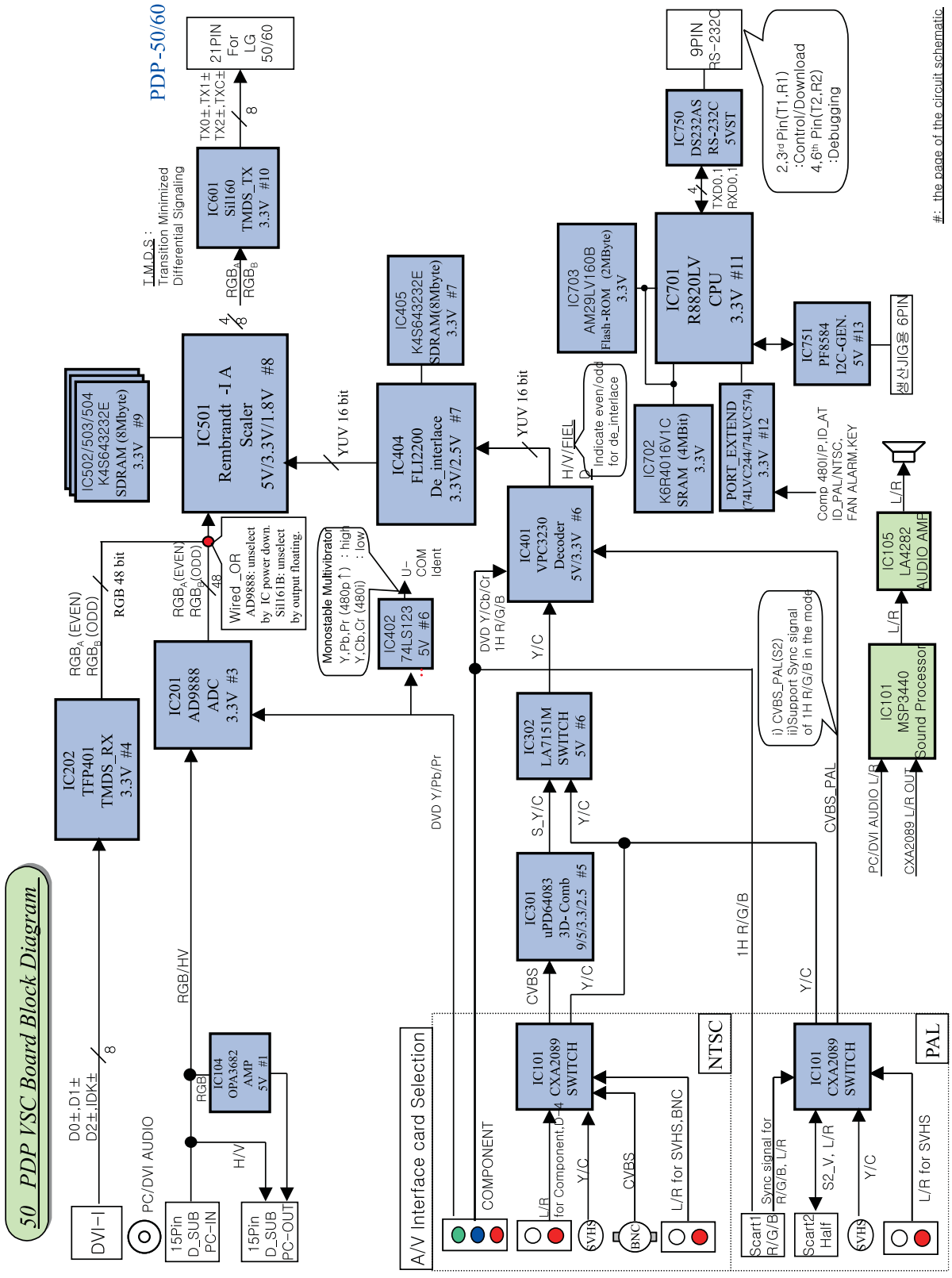
8-1. Required Equipment

HD-STB (SK-010T or same product)

8-2. Manual Adjustment of Off-Set

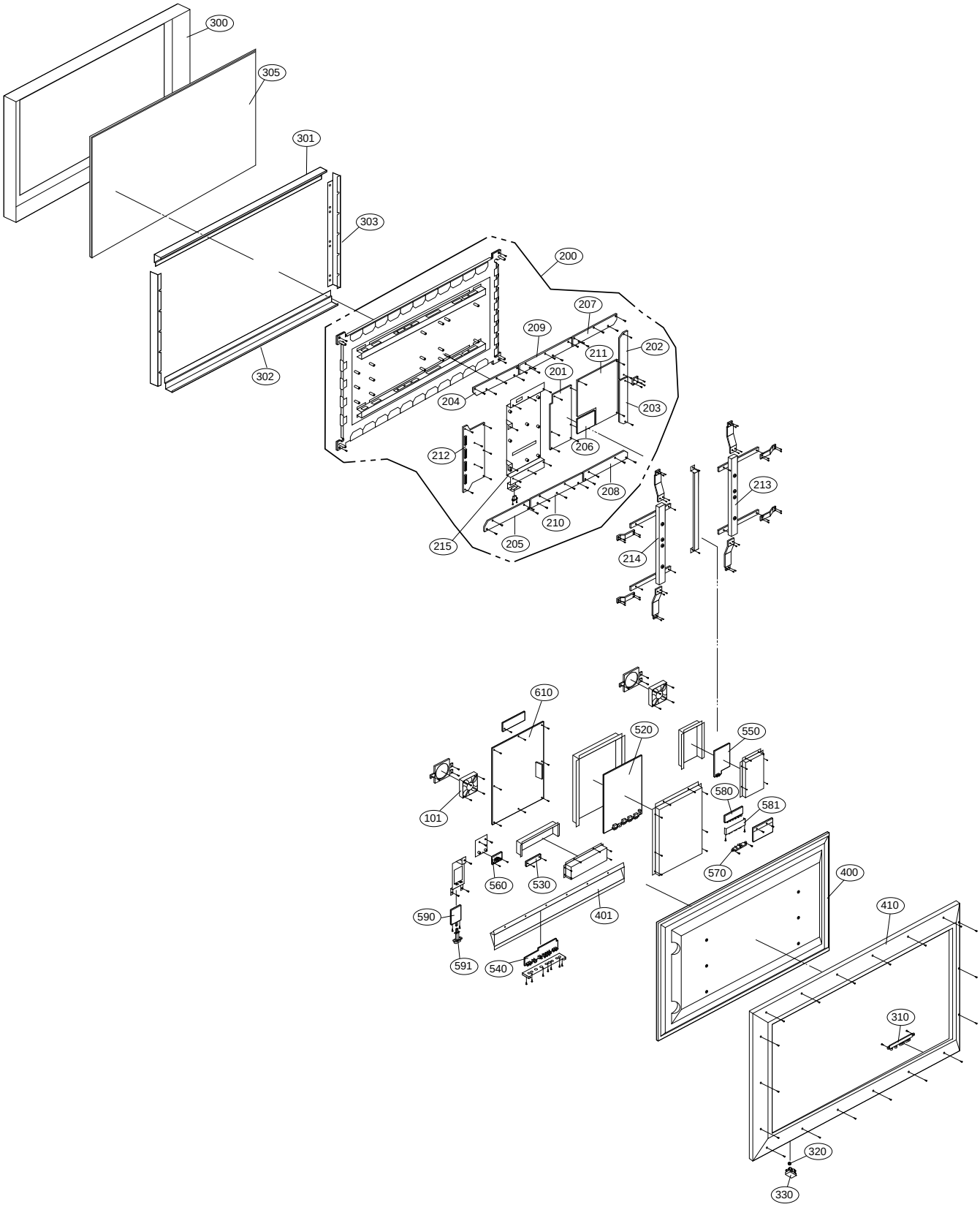
(1) Input Video signal and Component 720P, 1080i signal of HD-STB into AV1 and Component input.
(2) Select Twin Picture by pressing the adjust key twice, check component in the main picture and AV1 in the sub picture.
(3) Adjust the R-OFFSET, B-OFFSET color impression of component (Main picture) and external Input (Sub picture) same by pressing Volume +,- key.

BLOCK DIAGRAM



NOTES

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

No.	Part No.	Description
101	5900V12001A	FAN,DC G1225S12B2
200	6348Q-C030C	PDP,50 16:9 1365*768 DUAL SCAN POWER, INTERCOMPANY MODEL
201	6871QCH019A	PCB ASSEMBLY,CTRL ASSY 50INCH VER4 ASIC 370*220
202	6871QDH030A	PCB ASSEMBLY,YDRV ASSY 50WX1 4 LAYER(TOP)
203	6871QDH031A	PCB ASSEMBLY,YDRV ASSY 50WX1 4 LAYER(BOTTOM)
204	6871QLH018A	PCB ASSEMBLY,XRLT ASSY 50WX1 4LAYER LEFT TOP
205	6871QLH019A	PCB ASSEMBLY,XRLT ASSY 50WX1 4LAYER LEFT BOTTOM
206	6871QPH006A	PCB ASSEMBLY,MAIN DCDC ASSY 50WX1
207	6871QRH016A	PCB ASSEMBLY,XRRT ASSY 50WX1 4LAYER RIGHT TOP
208	6871QRH017A	PCB ASSEMBLY,XRRT ASSY 50WX1 4LAYER RIGHT BOTTOM
209	6871QXH011A	PCB ASSEMBLY,XRCT ASSY 50WX1 4LAYER CENTER TOP
210	6871QXH012A	PCB ASSEMBLY,XRCT ASSY 50WX1 4LAYER CENTER BOTTOM
211	6871QYH020B	PCB ASSEMBLY,YSUS ASSY 50WXDP1 NEWASIC 4 LAYER
212	6871QZH021A	PCB ASSEMBLY,ZSUS ASSY 50WX1 2 LAYER
213	4980V00416A	SUPPORTER ASSY,NON MN-50PZ40 RIGHT
214	4980V00416B	SUPPORTER ASSY,NON MN-50PZ40 LEFT
215	4980V00498B	SUPPORTER ASSY,AL SMPS DELTA
300	3091V00433E	CABINET ASSEMBLY,MU-50PZ41S STEREO RF02CA
301	4980V00361A	SUPPORTER,FILTER EGI MN-50PZ40
302	4980V00362A	SUPPORTER,FILTER EGI MN-50PZ40
303	4980V00363A	SUPPORTER,FILTER EGI MN-50PZ40
305	3790V00683A	WINDOW,GLASS FILTER MN50PZ41 MESH 1107*623 NBK
310	5020V00688A	BUTTON,CONTROL MN-50PZ41 . SET
320	320-062H	SPRING,COIL
330	5020V00645A	BUTTON,POWER OUTER MN-50PZ40 SET
400	3809V00292A	BACK COVER ASSEMBLY,MN-50PZ40 NON NON
401	3301V00009D	PLATE ASSEMBLY,AV MU-50PZ41
410	3809V00293B	BACK COVER ASSEMBLY,MN-50PZ41 NON NON
520	6871VMMN95A	PCB ASSEMBLY,MAIN RF-02KE FOR MU PIVOT MODEL
530	6871VSMD10A	PCB ASSEMBLY,SUB EXTRA RF-02CA 50IN IF/FIX
540	6871VSMD04A	PCB ASSEMBLY,SUB INTER RF-02CA I/F NTSC
550	6871VSMD06C	PCB ASSEMBLY,SUB A/V RF02CA 50IN AUDIO
560	6871VSMD11C	PCB ASSEMBLY,SUB SPK RF02CA 50IN RIGHT SPK
561	4980V00384A	SUPPORTER,SPK AL INTERFACE,MN-50PZ40
570	3141VSNA57A	CHASSIS ASSEMBLY,SUB NON RF-02CA PRE AMP
580	6871VSMD08A	PCB ASSEMBLY,SUB KBD RF-02CA 50IN LOCAL KEY
581	5020V00647A	BUTTON,CONTROL S/W INNER MN-50PZ40 SET
590	6871VSMD09A	PCB ASSEMBLY,SUB PSW RF-02CA 50IN POWER SWITCH
591	5020V00648A	BUTTON,POWER INNER MN-50PZ40 SET
600	6871VSMN17A	PCB ASSEMBLY,SUB EXTRA RF02CA RF-02CA FAN CONTROL BOARD
610	3501V00084C	BOARD ASSEMBLY,POWER BOARD MU50PZ41 RF02KA SONY CSA950

REPLACEMENT PARTS LIST

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;
CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic
RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

RUN DATE : 2002.12.3

LOCA. NO	PART NO	DESCRIPTION
IC		
IC1	0IMI623200B	M62320FP,I/O EXPANDER 16P
IC101	0IMCRMN002A	MSP3440G QA B6 MICRONAS 80
IC101	0ISO208900A	CXA2089Q 48QFP BK A/V SWITCH
IC101	0IAL242110A	AT24C2110SI2.5 8P,SOP TP 1K EEPROM
IC102	0IKE780800J	KIA7808API 3 ST REGULATOR .
IC102	0IAL242110A	AT24C2110SI2.5 8P,SOP TP 1K EEPROM
IC103	0ISH052100C	PQ05RD21 4SIP ST REGULATOR
IC103	0IMCRTI003A	SN74HCT08D TEXAS INSTRUMENT 16P
IC104	0IKE704200J	KIA7042AF SOT89 TP 4.2V
IC104	0IBB368200A	OPA3682E 16P SOP ST BUFFER AMP
IC2	0IDS162100B	DS1621V 8P SOIC ST THERMOSTAT
IC201	0IMCRAD003A	AD9888KS140 ANALOG DEVICE 128P
IC202	0IMCRS5003A	SIL169 CL100 SILICON IMAGE 100P
IC203	0IMCRTI001A	SN74HCT157D TEXAS INSTRUMENT 16P
IC3	0ISS278050A	KA278R05 4P,TO220F BK LOW DROP 5V
IC301	0IMMRNE002A	UPD64083GF3BA NEC 100 QFP ST 3D
IC302	0ISA715100D	LA7151M 10SOP R/TP AUDIO SW
IC4	0ISH092100A	PQ09RF21 4P 9V S/W REGULATOR
IC401	0IIT323000D	VPC3230D QA B4 80P QFP TRAY SOUND
IC402	0IFA741230A	DM74LS123MX 16SOP TP DUAL RETRIG. MONO
IC403	0IKE702700D	KIA7027AF 3, SOT89 TP RESET IC 2.7V
IC404	0IMCRG2001A	FLI2200 SAGE 176P,QFP TRAY VIDEO
IC405	0ISS464323A	K4S643232E(C)TC/L60(70) (KM432S2030CT/G)
IC5	0ISH092100A	PQ09RF21 4P 9V S/W REGULATOR
IC501	0IMCROT001A	REMBRANT1A OPLUS TECHNOLOGIES LTD
IC502	0ISS464323A	K4S643232E(C)TC/L60(70) (KM432S2030CT/G)
IC503	0ISS464323A	K4S643232E(C)TC/L60(70) (KM432S2030CT/G)
IC504	0ISS464323A	K4S643232E(C)TC/L60(70) (KM432S2030CT/G)
IC6	0ISS278120A	KA278R12 4P,TO220F BK LOW DROP 12V
IC601	0IS5160000A	SII160 100 TQFP ST PANELLINK DIGITAL
IC701	0IMCRRS001A	R8820LV RDC SEMICONDUCTOR LTD 100P
IC702	0IMMRSS064A	K6R4016V1DTC10 44P
IC703	0IMMRMR006A	COPY MX29LV160TTC70 MACRONIX 48P
IC704	0IAL241610A	AT24C16N10SI 8P SOIC ST EEPROM
IC741	0IMCRFA013A	74LCX244MTC FAIRCHILD 20P TSSOP
IC742	0IMCRFA013A	74LCX244MTC FAIRCHILD 20P TSSOP
IC743	0ITI745740M	SN74HC574NSR 14P,SOP TP DTYPE
IC744	0IMCRPH017A	74LVC574APW PHILIPS 20P SOT3601
IC745	0IPH740800L	74LVT08D 14SOP R/TP LOW VOLTAGE
IC746	0IMCRPH015A	74LVC32AD PHILIPS 14P SOT1081
IC747	0IMCRPH016A	74LVC139D PHILIPS 16P SOT1091
IC748	0IMCRPH014A	74LV132D PHILIPS 14P SOT1081
IC749	0IKE702700D	KIA7027AF 3, SOT89 TP RESET IC 2.7V
IC750	0IDS232000A	DS232AS 16P,SOP TP RS232
IC752	0IMCRTI001A	SN74HCT157D 16P R/TP RLJA10
IC801	0IMCRSJ001A	SC1565IST1.8 3P SOT223 TP REGULATOR
IC802	0ISA428200A	LA4282 12S 2CHX10W AUDIO AMP
IC802	0IPRPML001A	MIC39100 3P SOT223 R/TP LDO TYPE 2.5V
IC803	0IMCRFA010A	KA7809R, FAIRCHILD 2P DPAK
IC850	0IMCRRH001A	BA033FP ROHM 3PSOP
IC851	0IMCRRH001A	BA033FP ROHM 3PSOP
IC852	0IMCRRH001A	BA033FP ROHM 3PSOP
IC853	0IMCRRH001A	BA033FP ROHM 3PSOP
IC854	0IMCRRH001A	BA033FP ROHM 3PSOP
IC858	0IMCRRH001A	BA033FP ROHM 3PSOP
ICN102	0IMCRFA010A	KA7809R, FAIRCHILD 2P DPAK
TRANSISTOR		
IC105	0TR830009BA	BSS83 TP PHILIPS NON NCHANNEL S/W TR
IC106	0TR830009BA	BSS83 TP PHILIPS NON NCHANNEL S/W TR
IC7	0TR830009BA	BSS83 TP PHILIPS NON NCHANNEL S/W TR
IC8	0TR830009BA	BSS83 TP PHILIPS NON NCHANNEL S/W TR
Q001	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q002	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q104	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q150	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q151	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q152	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q153	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q155	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q156	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q157	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q158	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q161	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q162	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q300	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q301	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q302	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q303	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q304	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q305	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q306	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q307	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q308	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q309	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q310	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q314	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q315	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q316	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q317	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q318	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q319	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q320	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q400	0TR387500AA	CHIP 2SC3875S(ALY) KEC

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
Q401	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q402	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q403	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q404	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q405	0TR104009AF	CHIP KRC104S SOT23 TP KEC
Q406	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q407	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QA101	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QA102	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QA103	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QA720	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QA721	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QA722	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QA723	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QA740	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QN101	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QN102	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QN103	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QN104	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QN104	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QN105	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QN105	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QN106	0TR387500AA	CHIP 2SC3875S(ALY) KEC
QN107	0TR150400BA	CHIP 2SA1504S(ASY) KEC
QN108	0TR387500AA	CHIP 2SC3875S(ALY) KEC
DIODE		
D001	0DL200000CA	LED,SAM5670(DL2LRG) BK YGREEN
D1	0DD100009AM	EU1ZV(1) TP SANKEN
D100	0DD226239AA	CHIP KDS226 SOT23
D101	0DD226239AA	CHIP KDS226 SOT23
D102	0DD226239AA	CHIP KDS226 SOT23
D103	0DD226239AA	CHIP KDS226 SOT23
D104	0DD226239AA	CHIP KDS226 SOT23
D105	0DD226239AA	CHIP KDS226 SOT23
D106	0DD226239AA	CHIP KDS226 SOT23
D107	0DD226239AA	CHIP KDS226 SOT23
D108	0DD226239AA	CHIP KDS226 SOT23
D109	0DD226239AA	CHIP KDS226 SOT23
D110	0DD226239AA	CHIP KDS226 SOT23
D111	0DD226239AA	CHIP KDS226 SOT23
D112	0DD226239AA	CHIP KDS226 SOT23
D113	0DD226239AA	CHIP KDS226 SOT23
D114	0DD226239AA	CHIP KDS226 SOT23
D115	0DD226239AA	CHIP KDS226 SOT23
D117	0DD226239AA	CHIP KDS226 SOT23
D118	0DD226239AA	CHIP KDS226 SOT23
D119	0DD226239AA	CHIP KDS226 SOT23
D120	0DD226239AA	CHIP KDS226 SOT23
D121	0DD226239AA	CHIP KDS226 SOT23
D122	0DD226239AA	CHIP KDS226 SOT23

LOCA. NO	PART NO	DESCRIPTION
D123	0DD226239AA	CHIP KDS226 SOT23
D801	0DD226239AA	CHIP KDS226 SOT23
D802	0DD226239AA	CHIP KDS226 SOT23
D803	0DD226239AA	CHIP KDS226 SOT23
D850	0DD226239AA	CHIP KDS226 SOT23
D851	0DD226239AA	CHIP KDS226 SOT23
D852	0DD226239AA	CHIP KDS226 SOT23
D853	0DD226239AA	CHIP KDS226 SOT23
D854	0DD226239AA	CHIP KDS226 SOT23
D855	0DD226239AA	CHIP KDS226 SOT23
D857	0DD226239AA	CHIP KDS226 SOT23
D859	0DD226239AA	CHIP KDS226 SOT23
DA101	0DD184009AA	KDS184S CHIP 85V 300MA KEC TP
DA102	0DD184009AA	KDS184S CHIP 85V 300MA KEC TP
DA103	0DD184009AA	KDS184S CHIP 85V 300MA KEC TP
DA104	0DD184009AA	KDS184S CHIP 85V 300MA KEC TP
DA105	0DD226239AA	CHIP KDS226 SOT23
DA106	0DD226239AA	CHIP KDS226 SOT23
DN101	0DD226239AA	CHIP KDS226 SOT23
DN102	0DD226239AA	CHIP KDS226 SOT23
DN105	0DD226239AA	CHIP KDS226 SOT23
DN111	0DD226239AA	CHIP KDS226 SOT23
LD300	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD460	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD461	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD740	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD741	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD742	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD743	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD804	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD805	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
LD806	0DL233309AC	LED,SAM2333 TP KWANG GREEN/RED
ZD116	0DR050008AA	SD05.TC R/TP SEMTECH SOD323 5V
ZD201	0DR050008AA	SD05.TC R/TP SEMTECH SOD323 5V
ZD750	0DR050008AA	SD05.TC R/TP SEMTECH SOD323 5V
ZD751	0DR050008AA	SD05.TC R/TP SEMTECH SOD323 5V
ZD752	0DR050008AA	SD05.TC R/TP SEMTECH SOD323 5V
CAPACITOR		
C003	0CE476SF6DC	47UF MVG 16V M
C109	0CE107SF6DC	100UF MVG 16V M
C11	0CE477VF6DC	470UF MV 16V 20%
C110	0CE107SF6DC	100UF MVG 16V M
C111	0CE107SF6DC	100UF MVG 16V M
C112	0CE107SF6DC	100UF MVG 16V M
C113	0CE107SF6DC	100UF MVG 16V M
C114	0CE107SF6DC	100UF MVG 16V M
C115	0CE107SF6DC	100UF MVG 16V M
C119	0CE477VF6DC	470UF MV 16V 20%
C121	0CE477VF6DC	470UF MV 16V 20%
C123	0CE477VF6DC	470UF MV 16V 20%

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
C127	0CE476SF6DC	47UF MVG 16V M
C13	0CE476SF6DC	47UF MVG 16V M
C134	0CE476SF6DC	47UF MVG 16V M
C14	0CE105SK6DC	1UF MVG 50V M
C15	0CE105SK6DC	1UF MVG 50V M
C150	0CE476SF6DC	47UF MVG 16V M
C154	0CE476SF6DC	47UF MVG 16V M
C158	0CE476SF6DC	47UF MVG 16V M
C16	0CE105SK6DC	1UF MVG 50V M
C179	0CE476SF6DC	47UF MVG 16V M
C182	0CE476SF6DC	47UF MVG 16V M
C185	0CE476SF6DC	47UF MVG 16V M
C2	0CE106SF6DC	10UF MVG 16V 20%
C300	0CE476SF6DC	47UF MVG 16V M
C303	0CE476SF6DC	47UF MVG 16V M
C306	0CE476SF6DC	47UF MVG 16V M
C311	0CE106SF6DC	10UF MVG 16V 20%
C316	0CN105EJ56A	1.0UF 3216 35V 10%
C320	0CN105EJ56A	1.0UF 3216 35V 10%
C322	0CE106SF6DC	10UF MVG 16V 20%
C344	0CE106SF6DC	10UF MVG 16V 20%
C348	0CE106SF6DC	10UF MVG 16V 20%
C4	0CE106SF6DC	10UF MVG 16V 20%
C400	0CN105EJ56A	1.0UF 3216 35V 10%
C401	0CE106SF6DC	10UF MVG 16V 20%
C408	0CE106SF6DC	10UF MVG 16V 20%
C409	0CE107SF6DC	100UF MVG 16V M
C411	0CK224DF56A	220000PF 2012 16V 10%
C418	0CK224DF56A	220000PF 2012 16V 10%
C420	0CE106SF6DC	10UF MVG 16V 20%
C425	0CK224DF56A	220000PF 2012 16V 10%
C426	0CK224DF56A	220000PF 2012 16V 10%
C427	0CK224DF56A	220000PF 2012 16V 10%
C436	0CK224DF56A	220000PF 2012 16V 10%
C452	0CE106SF6DC	10UF MVG 16V 20%
C464	0CE476SF6DC	47UF MVG 16V M
C6	0CE476SF6DC	47UF MVG 16V M
C8	0CE476SF6DC	47UF MVG 16V M
C800	0CE477VF6DC	470UF MV 16V 20%
C805	0CE477VF6DC	470UF MV 16V 20%
C806	0CE106SF6DC	10UF MVG 16V 20%
C808	0CE227VF6DC	220UF MV 16V 20%
C812	0CE477VF6DC	470UF MV 16V 20%
C814	0CE227VF6DC	220UF MV 16V 20%
C816	0CE477VF6DC	470UF MV 16V 20%
C817	0CE106SF6DC	10UF MVG 16V 20%
C818	0CE227VF6DC	220UF MV 16V 20%
C820	0CE107SF6DC	100UF MVG 16V M
C822	0CE107SF6DC	100UF MVG 16V M
C825	0CE107SF6DC	100UF MVG 16V M
C827	0CE227VF6DC	220UF MV 16V 20%

LOCA. NO	PART NO	DESCRIPTION
C829	0CE227VF6DC	220UF MV 16V 20%
C832	0CE476SF6DC	47UF MVG 16V M
C835	0CE476SF6DC	47UF MVG 16V M
C838	0CE476SF6DC	47UF MVG 16V M
C840	0CE107SF6DC	100UF MVG 16V M
C842	0CE107SF6DC	100UF MVG 16V M
C845	0CE476SF6DC	47UF MVG 16V M
C848	0CE476SF6DC	47UF MVG 16V M
C849	0CE477VF6DC	470UF MV 16V 20%
C851	0CE477VF6DC	470UF MV 16V 20%
C853	0CE477VF6DC	470UF MV 16V 20%
C856	0CE107SF6DC	100UF MVG 16V M
C859	0CE107SF6DC	100UF MVG 16V M
C862	0CE107SF6DC	100UF MVG 16V M
C865	0CE107SF6DC	100UF MVG 16V M
C867	0CE227VF6DC	220UF MV 16V 20%
C869	0CE227VF6DC	220UF MV 16V 20%
C872	0CE476SF6DC	47UF MVG 16V M
C875	0CE476SF6DC	47UF MVG 16V M
C878	0CE106SF6DC	10UF MVG 16V 20%
C892	0CE477VF6DC	470UF MV 16V 20%
C894	0CE477VF6DC	470UF MV 16V 20%
C897	0CE107SF6DC	100UF MVG 16V M
C900	0CE107SF6DC	100UF MVG 16V M
C903	0CE107SF6DC	100UF MVG 16V M
C906	0CE107SF6DC	100UF MVG 16V M
C908	0CE477VF6DC	470UF MV 16V 20%
C910	0CE477VF6DC	470UF MV 16V 20%
C931	0CE107SF6DC	100UF MVG 16V M
C933	0CE477VF6DC	470UF MV 16V 20%
C935	0CE477VF6DC	470UF MV 16V 20%
C938	0CE107SF6DC	100UF MVG 16V M
C941	0CE227VF6DC	220UF MV 16V 20%
C944	0CE476SF6DC	47UF MVG 16V M
C947	0CE476SF6DC	47UF MVG 16V M
C949	0CE477VF6DC	470UF MV 16V 20%
C951	0CE477VF6DC	470UF MV 16V 20%
C954	0CE107SF6DC	100UF MVG 16V M
C957	0CE476SF6DC	47UF MVG 16V M
C966	0CE107SF6DC	100UF MVG 16V M
C968	0CE106SF6DC	10UF MVG 16V 20%
C970	0CE106SF6DC	10UF MVG 16V 20%
C973	0CE106SF6DC	10UF MVG 16V 20%
C975	0CE227VF6DC	220UF MV 16V 20%
C977	0CE227VF6DC	220UF MV 16V 20%
C980	0CE476SF6DC	47UF MVG 16V M
C983	0CE107SF6DC	100UF MVG 16V M
C986	0CE476SF6DC	47UF MVG 16V M
C989	0CE107SF6DC	100UF MVG 16V M
C992	0CE107SF6DC	100UF MVG 16V M
CA101	0CE477DK618	470UF STD 50V 20%

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
CA102	0CE477DK618	470UF STD 50V 20%
CA104	0CE107DH618	100UF STD 25V M
CA105	0CE105SK6DC	1UF MVG 50V M
CA106	0CE106SF6DC	10UF MVG 16V 20%
CA107	0CQ6821N509	0.0068U 100V K
CA108	0CE107DH618	100UF STD 25V M
CA109	0CQ6821N509	0.0068U 100V K
CA110	0CE477DK618	470UF STD 50V 20%
CA111	0CE477DK618	470UF STD 50V 20%
CA112	0CE106SF6DC	10UF MVG 16V 20%
CA113	181-120K	2200PF 4KV M E
CA114	181-120K	2200PF 4KV M E
CA115	0CE477DK618	470UF STD 50V 20%
CA116	0CE107DH618	100UF STD 25V M
CA117	0CE477DK618	470UF STD 50V 20%
CA118	0CQ1041N509	0.1U 100V K
CA119	0CE227VF6DC	220UF MV 16V 20%
CA120	0CE106SF6DC	10UF MVG 16V 20%
CA121	0CQ1041N509	0.1U 100V K
CA122	0CE227VF6DC	220UF MV 16V 20%
CA125	0CE107SF6DC	100UF MVG 16V M
CA126	0CE474SK6DC	0.47UF MVG 50V M
CA127	0CE474SK6DC	0.47UF MVG 50V M
CA128	0CE335SK6DC	3.3UF MVG 50V 20%
CA129	0CE107SF6DC	100UF MVG 16V M
CA131	0CE106SF6DC	10UF MVG 16V 20%
CA132	0CE474SK6DC	0.47UF MVG 50V M
CA133	0CE474SK6DC	0.47UF MVG 50V M
CA134	0CE106SF6DC	10UF MVG 16V 20%
CA135	0CE106SF6DC	10UF MVG 16V 20%
CA139	0CE106SF6DC	10UF MVG 16V 20%
CA140	0CE107SF6DC	100UF MVG 16V M
CA153	0CE107SF6DC	100UF MVG 16V M
CA154	0CE476SF6DC	47UF MVG 16V M
CA154	0CE476SF6DC	47UF MVG 16V M
CA155	0CE106SF6DC	10UF MVG 16V 20%
CA156	0CE476SF6DC	47UF MVG 16V M
CA404	0CE476SF6DC	47UF MVG 16V M
CA751	0CE105SK6DC	1UF MVG 50V M
CN113	0CE476SF6DC	47UF MVG 16V M
CN114	0CE476SF6DC	47UF MVG 16V M
CN115	0CE476SF6DC	47UF MVG 16V M
CN119	0CE105SK6DC	1UF MVG 50V M
CN120	0CE105SK6DC	1UF MVG 50V M
CN121	0CE105SK6DC	1UF MVG 50V M
CN122	0CE105SK6DC	1UF MVG 50V M
CN123	0CE105SK6DC	1UF MVG 50V M
CN124	0CE476SF6DC	47UF MVG 16V M
CN127	0CE105SK6DC	1UF MVG 50V M
CN130	0CE105SK6DC	1UF MVG 50V M
CN133	0CE105SK6DC	1UF MVG 50V M

LOCA. NO	PART NO	DESCRIPTION
CN137	0CE476SF6DC	47UF MVG 16V M
CN138	0CE105SK6DC	1UF MVG 50V M
CN141	0CE476SF6DC	47UF MVG 16V M
CN144	0CE476SF6DC	47UF MVG 16V M
CN145	0CE476SF6DC	47UF MVG 16V M
CN147	0CE476SF6DC	47UF MVG 16V M
CN149	0CE476SF6DC	47UF MVG 16V M
COIL		
L800	6140VB0004B	COIL,CHOKE 26UH 1UEWPHY 22.5TURN
L801	6140VB0004B	COIL,CHOKE 26UH 1UEWPHY 22.5TURN
L803	150-C02F	COIL,CHOKE 82UH
JACK		
P102	380-068B	JACK,PHONE 3.5 EARPHONE WITH SW
P103	6612BBBHN6A	JACK,DIN 4400621 AMP DVI INTERACED
P103A	6612VLH001A	JACK,RCA SP022B 2P BK/RD
P103B	6612VLH001A	JACK,RCA SP022B 2P BK/RD
P120	380-068B	JACK,PHONE 3.5 EARPHONE WITH SW
PN101	380-363J	JACK,DIN PJ6046F H=8.0 W/O S/W,W/SHIELD
PN102	6612JH003CA	JACK,RCA PPJ137A AUDIO LMONO JACK
PN103	6612VMV002A	JACK,DRAWING UCTEX020 UGCOM BNC MONO
PN104	6612J00010A	JACK,RCA PPJ128A1 A/V 2P MONO
PN105	6612JH003CA	JACK,RCA PPJ137A AUDIO LMONO JACK
CONNECTOR		
P002A	387-B04J	CONNECTOR ASSEMBLY,4P 2.5MM
P1	387-B04J	CONNECTOR ASSEMBLY,4P 2.5MM
P101	6630VGA001C	CONNECTOR,DSUB 15PIN 2.29MM
P104	6630VGA001C	CONNECTOR,DSUB 15PIN 2.29MM
P2	387-A03J	CONNECTOR ASSEMBLY,3P 2.5MM
P741	6630VGA004B	CONNECTOR,DSUB 9P 2.77MM
P802A	387-A03J	CONNECTOR ASSEMBLY,3P 2.5MM
RESISTOR		
AR200	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR201	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR202	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR203	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR204	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR205	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR206	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR207	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR208	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR209	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR210	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR211	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR260	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR261	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR262	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR263	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
AR264	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR265	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR266	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR267	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR268	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR269	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR270	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR271	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR400	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR401	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR402	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR403	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR460	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR461	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR462	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR463	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR464	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR465	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR466	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR467	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR468	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR469	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR470	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR471	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR472	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR473	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR474	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR475	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR500	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR501	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR502	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR503	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR504	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR505	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR506	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR507	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR508	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR509	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR510	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR511	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR512	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR513	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR514	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR515	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR516	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR517	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR550	0RRZVTA001C	4.7K OHM 1 / 16 W 1608 5%
AR551	0RRZVTA001C	4.7K OHM 1 / 16 W 1608 5%
AR552	0RRZVTA001C	4.7K OHM 1 / 16 W 1608 5%
AR553	0RRZVTA001C	4.7K OHM 1 / 16 W 1608 5%
R22	0RD0152H609	15 OHM 1/2 W 5.00% TA52

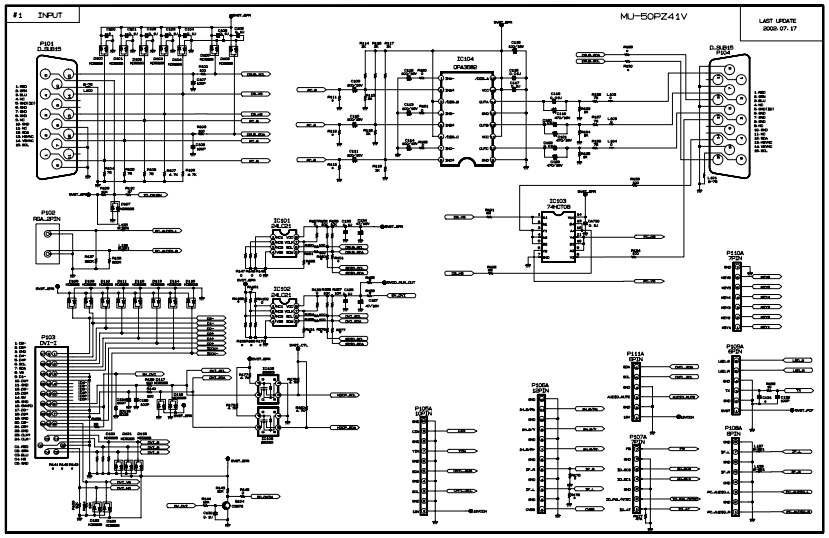
LOCA. NO	PART NO	DESCRIPTION
RA101	0RS2701K607	2.7K OHM 2 W 5.00%
RA102	0RS2701K607	2.7K OHM 2 W 5.00%
RA105	0RD4700H609	470 OHM 1/2 W 5.00%
RA109	0RD4700H609	470 OHM 1/2 W 5.00%
RA114	0RS0221H609	2.2 OHM 1/2 W 5.00%
RA117	0RS0221H609	2.2 OHM 1/2 W 5.00%
SWITCH		
SW001	140-315A	SWITCH,TACT SKHV17910B 12V
SW002	140-315A	SWITCH,TACT SKHV17910B 12V
SW003	140-315A	SWITCH,TACT SKHV17910B 12V
SW004	140-315A	SWITCH,TACT SKHV17910B 12V
SW005	140-315A	SWITCH,TACT SKHV17910B 12V
SW006	140-315A	SWITCH,TACT SKHV17910B 12V
SW101	140-275A	SWITCH,PUSH JDPB21SA EVLAND NON 30V
SW742	140-275A	SWITCH,PUSH JDPB21SA EVLAND NON 30V
SW800	6600VM2006A	SWITCH,PUSH SDDF3PATP011 250V
FILTER & CRYSTAL		
L100	6210VC0005A	FILTER,EMC BK2125 HS 750
L101	6210VC0005A	FILTER,EMC BK2125 HS 750
L135	6200JB8007L	FILTER,EMC HH2012 1M221JT
L136	6200JB8007L	FILTER,EMC HH2012 1M221JT
L137	6200JB8007L	FILTER,EMC HH2012 1M221JT
L138	6200JB8007L	FILTER,EMC HH2012 1M221JT
L150	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L300	6210VC0005A	FILTER,EMC BK2125 HS 750
L301	6210VC0005A	FILTER,EMC BK2125 HS 750
L302	6210VC0005A	FILTER,EMC BK2125 HS 750
L411	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L460	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L806	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L807	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L808	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L809	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L810	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L811	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L850	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L851	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L852	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L853	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L854	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L855	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L856	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L857	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L858	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L859	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L860	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L861	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L862	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L863	6210VC0006A	FILTER,EMC FBMH3216 HM501NT

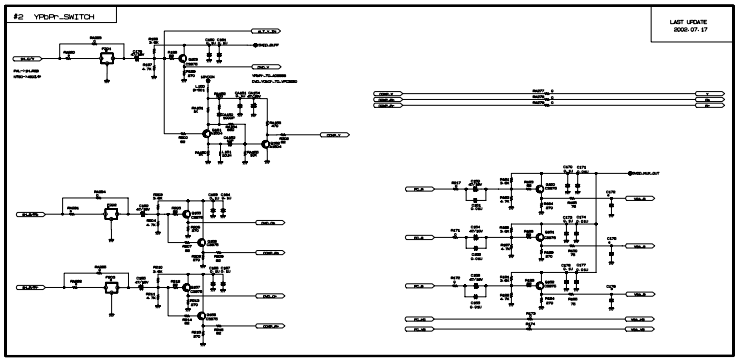
REPLACEMENT PARTS LIST

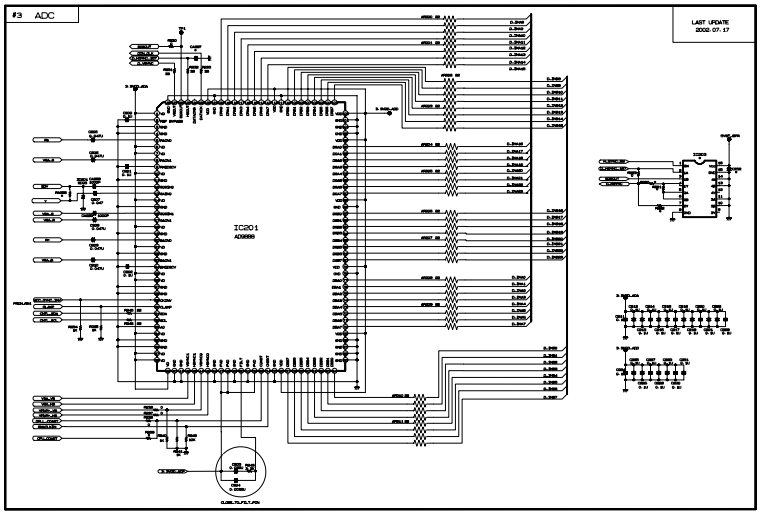
LOCA. NO	PART NO	DESCRIPTION
L864	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L865	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L866	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L867	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L868	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L871	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L872	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L873	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L874	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L875	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L876	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L877	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L880	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L881	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L882	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L883	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L884	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L885	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L886	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L887	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L889	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LA101	150-F09A	FILTER,EMC SQE2222 714MH 0.37PHY
LA102	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LA104	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LA105	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LA106	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LN107	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LN108	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LN109	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
LT300	6200C000010	FILTER,B.P. H354LAIK5202
LT301	6200C000010	FILTER,B.P. H354LAIK5202
LT302	6200C000009	FILTER,B.P. H354LAIK5225
R30	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
X300	6212AB2015B	RESONATOR,CRYSTAL HC49/SM5H 20MHZ +/ 30 PPM
X400	6202VDT002E	RESONATOR,CRYSTAL SX1SMD 20250000HZ 30PPM
X601	156-A02M	RESONATOR,CRYSTAL HC49U 18.432MHZ 30PPM
X700	6212AB2015C	RESONATOR,CRYSTAL HC49/SM4H 25MHZ +/ 50 PPM
MISCELLANEOUS		
P001	6726VV0006K	REMOTE CONTROLLER RECEIVER,38KHZ
ACCESSORIES		
A1	3828VA0352L	MANUAL,OWNERS MU50PZ41VS ZENITH
A2	6710V00092Q	REMOTE CONTROLLER,MU50PZ41S ZENITH
A3	6410VUH005A	POWER CORD,PS204 125V/13A VOLEX UL/CSA
A4	6612VMV002B	JACK,DRAWING UCTEX031 UGCOM
A5	6850V00001A	CABLE,FLAT 15660751 DVI A/D TO A/D 2000MM
A6	6866VA9001B	CONNECTOR ,DSUB 29909C UL 1161 AWG

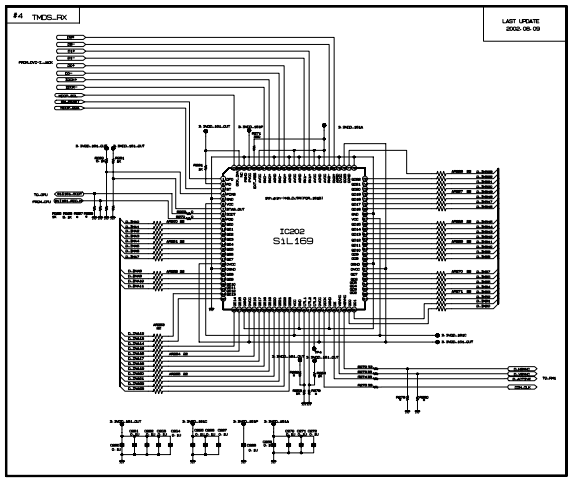
LOCA. NO	PART NO	DESCRIPTION

zenith


#1 INPUT
MU-50PZ41V
LAST UPDATE
2008.07.17

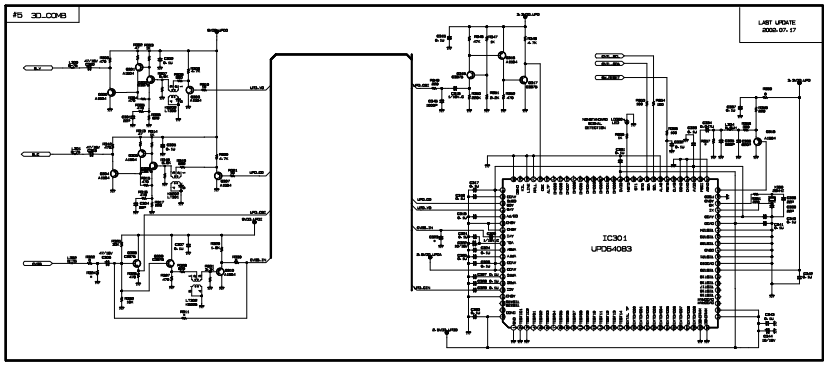

#2 YPbPr_SWITCH
LAST UPDATE
2008.07.17


#3 ADC
LAST UPDATE
2008.07.17


#4 TMDS_RX
LAST UPDATE
2008.08.09

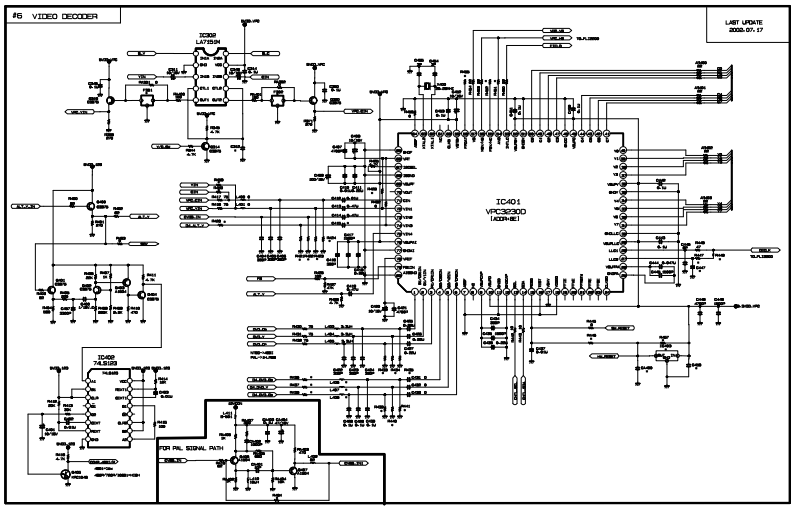
#5 3D_COMB

LAST UPDATE
2003.07.17



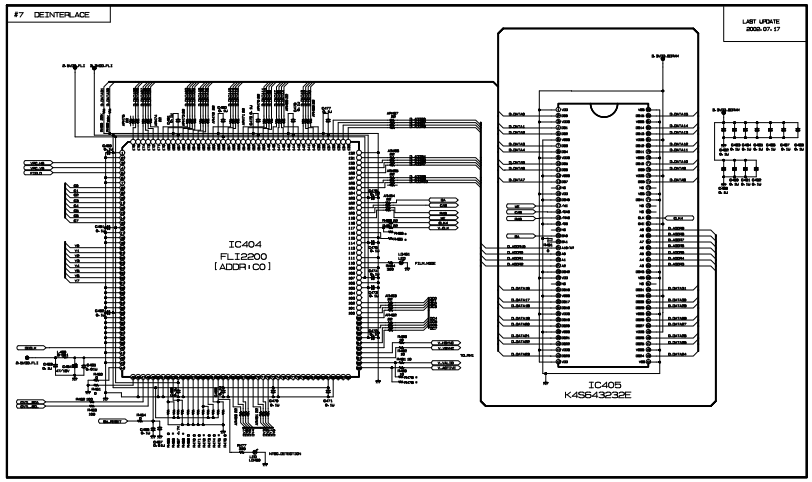
#6 VIDEO DECODER

LAST UPDATE
2003.07.17



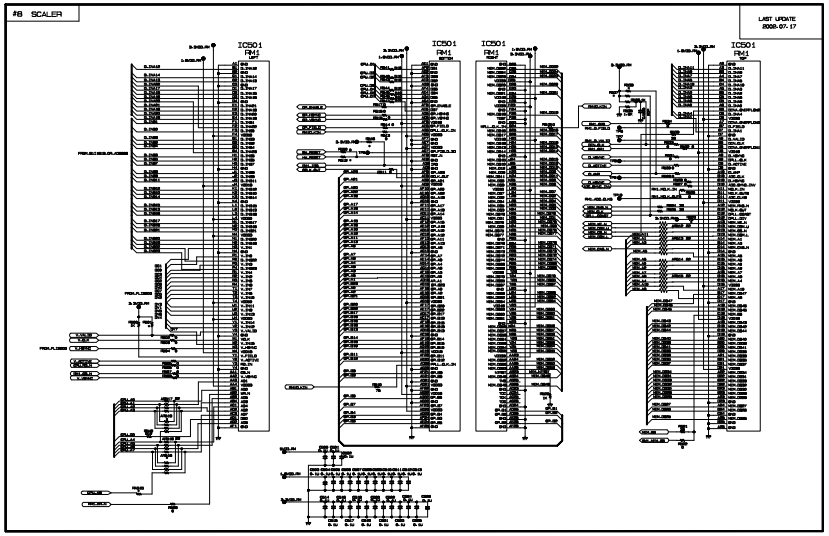
#7 DEINTERLACE

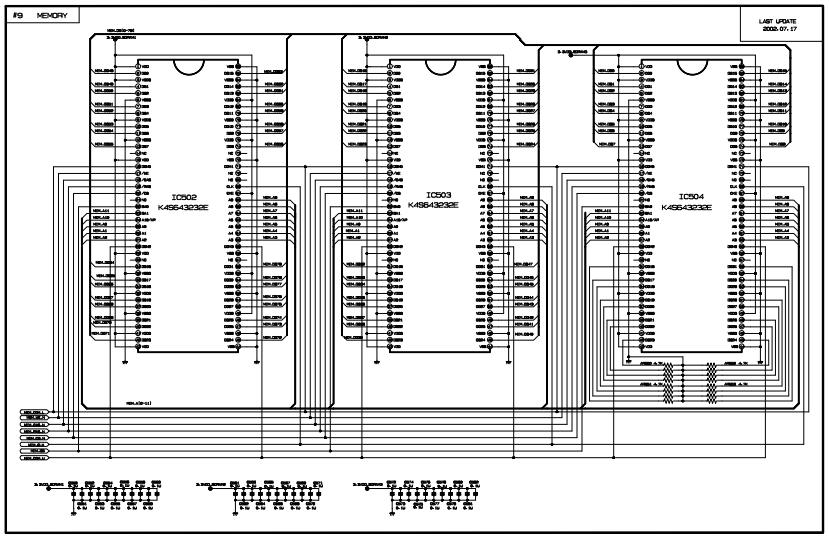
LAST UPDATE
2003.07.17

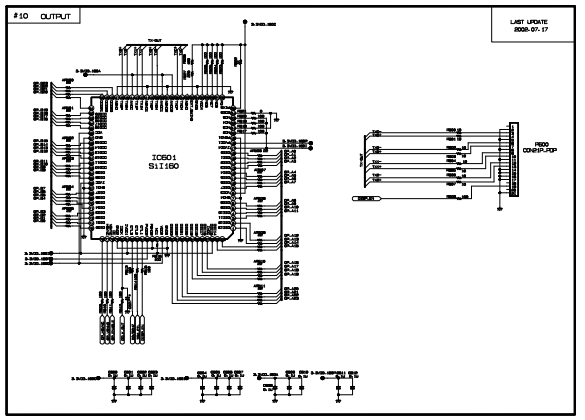


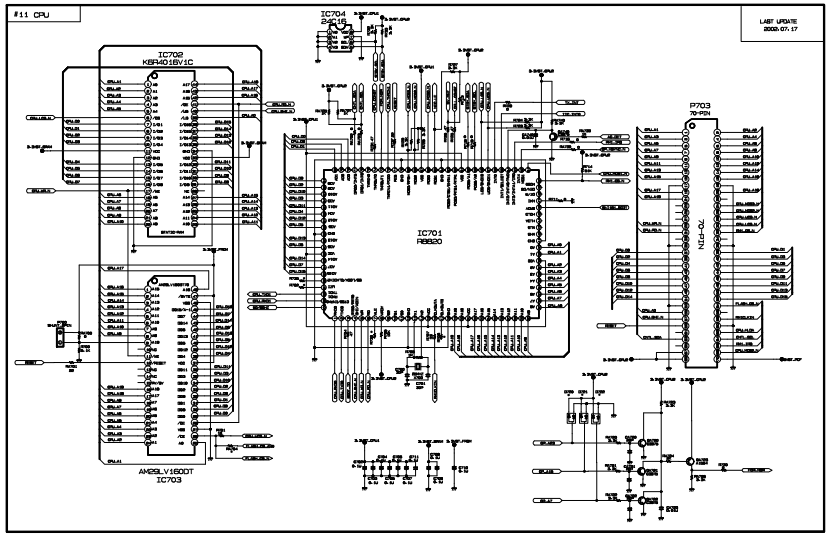
#8 SCALER

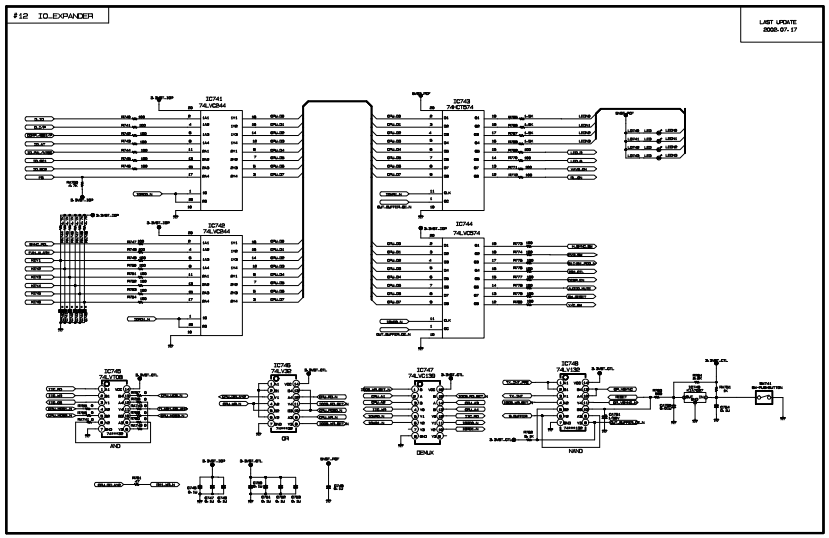
LAST UPDATE
2003.07.17

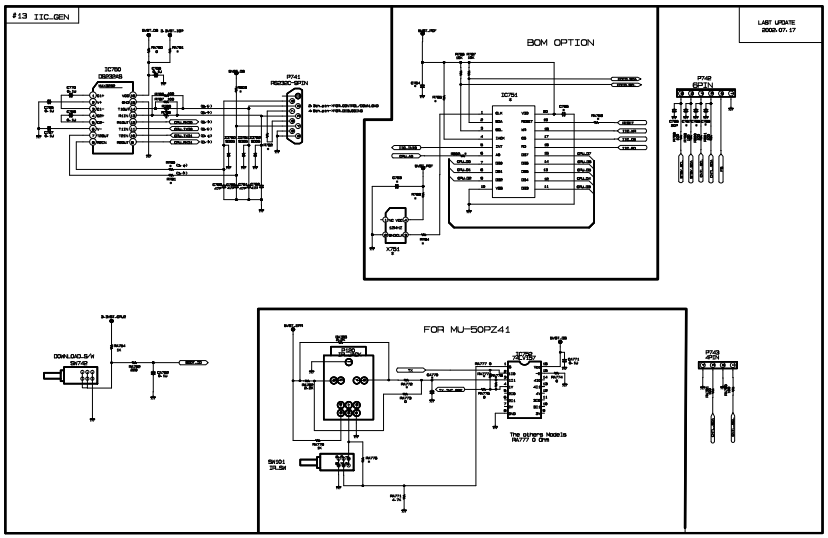


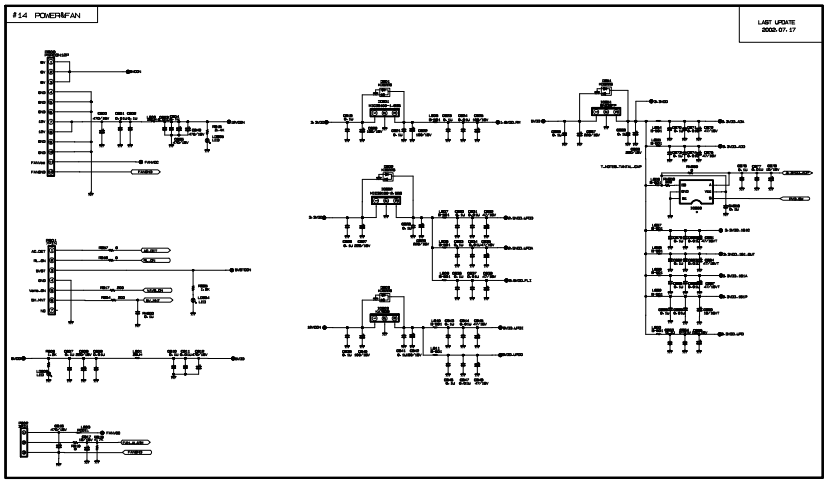

#9 MEMORY
LAST UPDATE
2008.07.17
IC502
K4S643232E
IC503
K4S643232E
IC504
K4S643232E

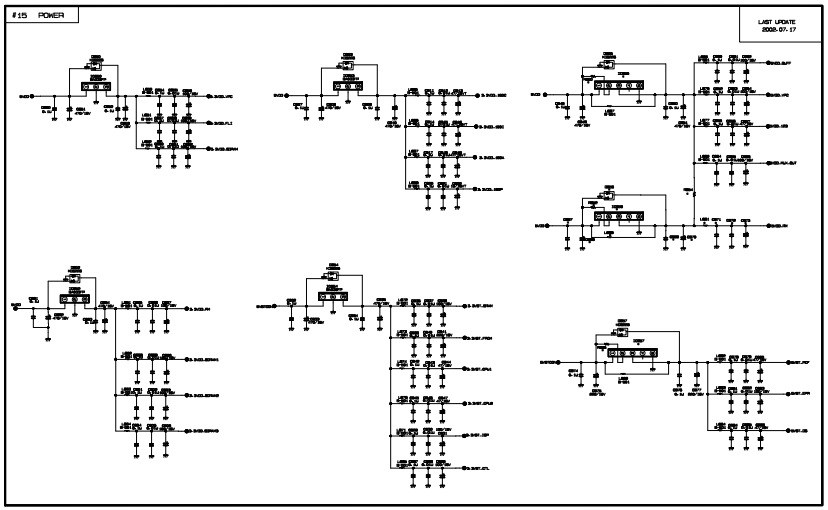

#10 OUTPUT
LAST UPDATE
2008.07.17
IC501
S1I160
P600
CONN-P-90P

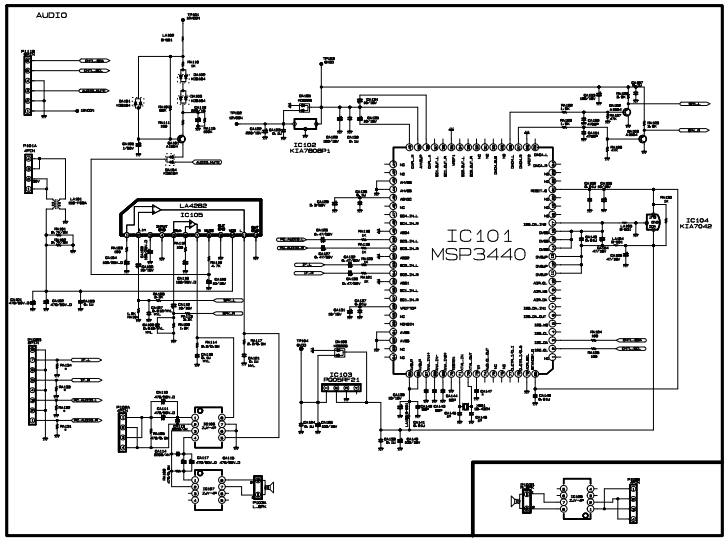

#11 CPU
LAST UPDATE
2008.07.17
IC704
24C16
IC702
K6R4016V1C
IC701
R9320
P703
70-PIN
AM29LV160DT
IC703

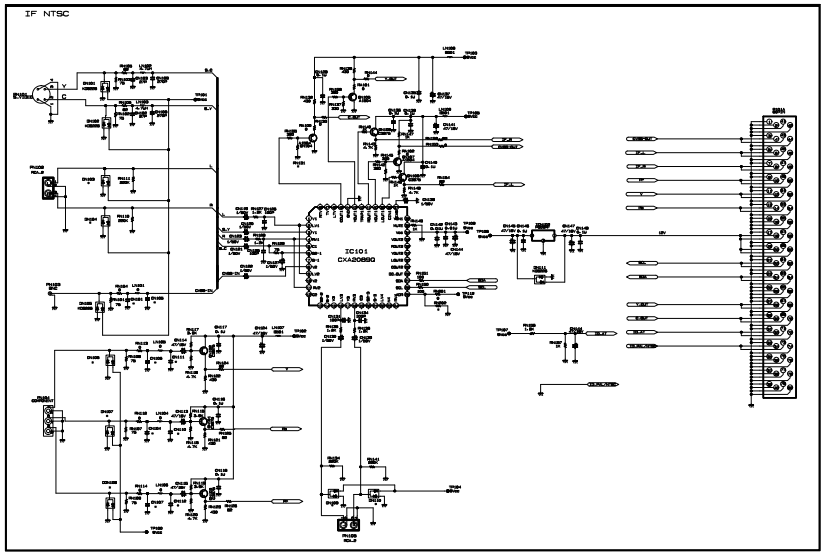

#12 IO_EXPANDER
LAST UPDATE
2008.07.17
IC741
74LVC244
IC743
74HCT574
IC742
74LVC244
IC744
74LVC574
IC745
74LV139
AND
IC746
74LV139
OR
IC747
74LVC139
IC748
74LV139
NAND

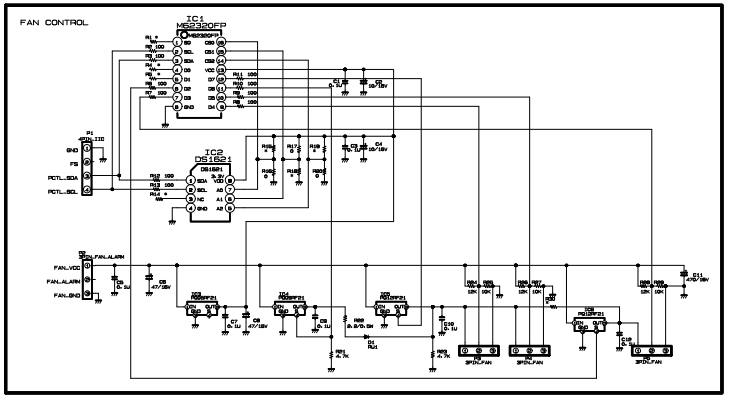

#13 IIC_GEN
LAST UPDATE
2005.07.17
BOM OPTION
FOR MU-50PZ41

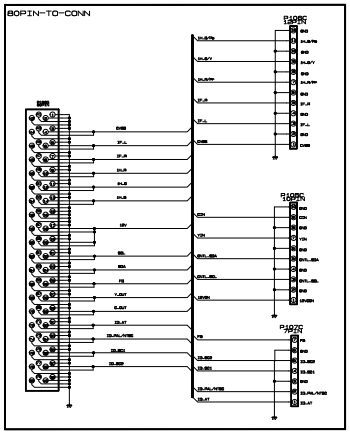

#14 POWER/FAN
LAST UPDATE
2005.07.17

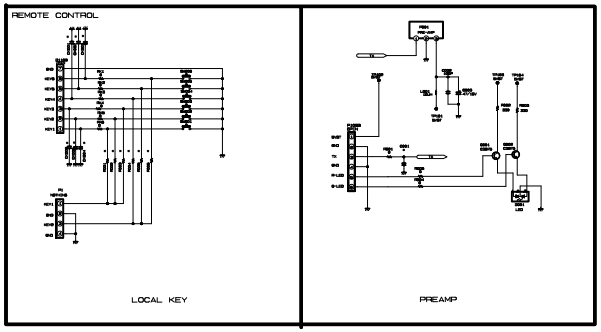

#15 POWER
LAST UPDATE
2005.07.17


AUDIO
IC101
MSP3440


IF NTSC
IC101
CXA2069Q

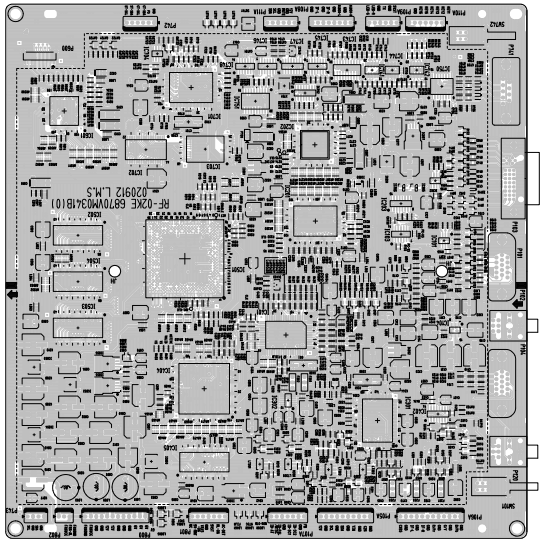

FAN CONTROL
IC1
MB3320FP
IC2
DS1624


80PIN-TO-CONN

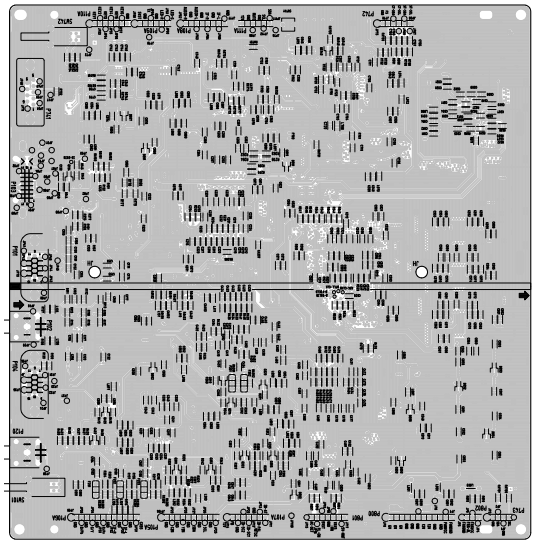

REMOTE CONTROL
LOCAL KEY
PREAMP

PRINTED CIRCUIT BOARD

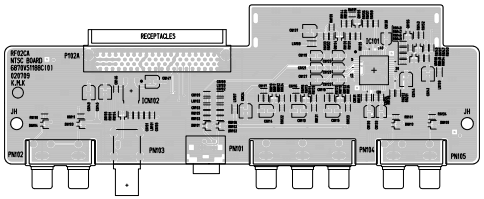
MAIN(TOP)



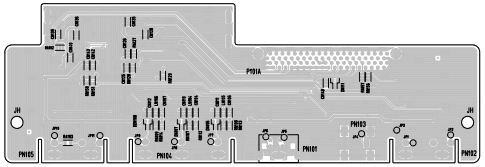
MAIN(BOTTOM)



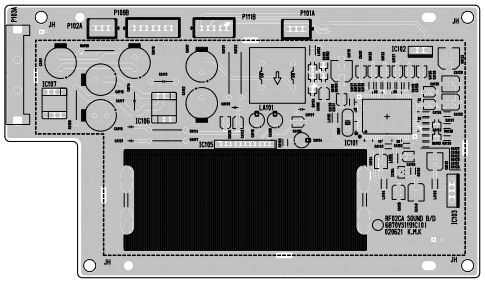
A/V NTSC(TOP)



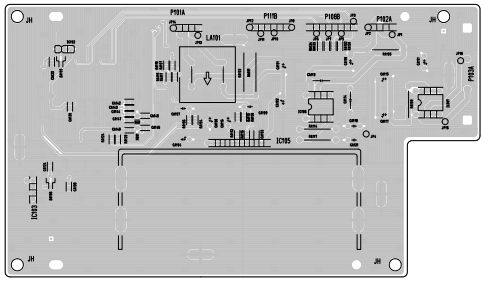
A/V NTSC(BOTTOM)



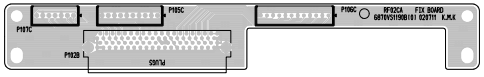
AUDIO(TOP)



AUDIO(BOTTOM)

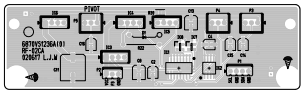


INTERFACE FIX(TOP)

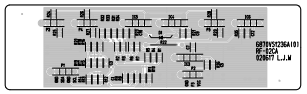


INTERFACE FIX(BOTTOM)

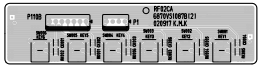
FAN CONTROL(TOP)



FAN CONTROL(BOTTOM)

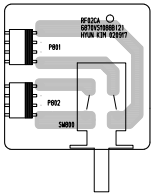


LOCAL KEY(TOP)

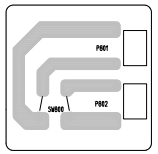


LOCAL KEY(BOTTOM)

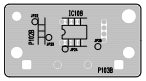
POWER S/W(TOP)



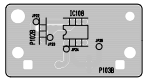
POWER S/W(BOTTOM)



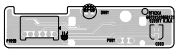
RIGHT SPK(TOP)



RIGHT SPK(BOTTOM)



PRE-AMP(TOP)



PRE-AMP(BOTTOM)